

Citywide Wayfinding and Signage Program
Graphic Signage Standards Manual

March 4, 2005

MIAMI BEACH

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SECTION A: **INTRODUCTION**

CITY OF MIAMI BEACH TO PROVIDE

Tourism is big business is Miami Beach and a coordinated sign program presents the City of Miami Beach as a well planned, organized and friendly community.

The sign program will provide a consistent Miami Beach identity. The Miami Beach identity and the unique design of this urban wayfinding program represents the image, mission and aspirations of the city, its correct and consistent usage is a key element in building trust among it users and brand equity beyond the reach of the city limits.

The sign program will help visitors and residents easily find their way around the city. Great care has gone into developing sign types, sizes, graphics, contrast, letter heights and typefaces that will be appropriate for both vehicular and pedestrian users, as well as exterior and interior conditions.

The combination of the unique design style of the signs and the technical engineering criteria has been at the core of this project. The City, County, State, Stakeholders, Destinations and design team have work diligently to prepare these documents to meet the variety of criteria and aspirations of all. It is vital to the success of this program that all standards and guidelines be adhered to, to protect the design intent and functionality of the system.

The detailed construction drawings will ensure the fabrication and installation of the signage is consistent and suitable for a variety of architectural realities and environmental conditions.

The south Florida climate presents unique conditions, maintenance, expansion and flexibility have been guiding forces in development of the program.

Most situations have been covered. However as the program grows and advances many special conditions will arise. These conditions will have to be handled individually. They should be consistent with the graphic language and elements that have been established in this manual.

The City of Miami Beach Graphic Sign Standards Manual has been designed on 11" x 17" sheets and prepared in Adobe Illustrator and QuarkXpress Software programs. A Portable Document Format (PDF) of the document will be available on the City of Miami Beach web site.

BACKGROUND

This document represents the completion of the Graphic Standards Manual of the City of Miami Beach - Citywide Wayfinding and Signage Program.

The projects consist of an organized and coordinated wayfinding program, including vehicular and pedestrian signage.

The design team has worked with the City of Miami Beach, Miami Dade County Department of Public Works, Florida Department of Transportation, Stakeholders, Destinations and the community to gather information present wayfinding concepts and develop schematic designs.

For those who are not familiar with the project, this introduction will provide a brief background of the work completed to date.

Step one consisted of the development of a Strategic Implementation Plan, which set the goals for the project, established an approval process and also helped determine which destinations would be considered for inclusion in the program.

A Wayfinding Analysis was then conducted, this study reviewed gateways into the city, circulation, routing, district names, district boundaries and pedestrian paths. It also set basic wayfinding principles and established design / technical criteria.

The Design Team than began the next two phases in unison, this included programming and schematic design.

Programming is the detail work of determining where the signs go and what the message should read. Several working sessions with the stakeholders and destinations were held to review their routing and individual sign locations. Site checks were conducted to determine the correct placement of signs.

Schematic Design began with what we have labeled as an Identity Forum. This “taste test” provided the Stakeholders and others the opportunity to express their likes and dislikes through a visual display of images, words, colors and design ideas. The comments gathered were then used as the criteria and inspiration in developing the schematic design.

Three varying concepts were developed and presented during a series of meetings, which included the Steering Committee, Stakeholders, City of Miami Beach, Miami Dade County and the Florida Department of Transportation and two community “open houses”. Surveys were provided and all the comments were reviewed.

It was our task to sort through the comments and to responsibly and respectfully integrate them into the program based on our knowledge of

wayfinding principles and human factors. No comment was dismissed or arbitrarily disregarded.

Further development of the design continued based on the critiques expressed during the schematic design presentations; both positive and negative comments were taken into consideration.

The resulting design was based on Miami Beach and its influence on style. The design presents simple sign components, shaped into unique forms, establishing a stylish aesthetic appropriate to the city and its image. The ellipse shaped post provides a modern elegance to the spine of the sign structure. The guide sign face is simple, meeting FDOT criteria, but the back of the sign, the panel shape and brackets take on curved forms turning a seemingly straight forward sign into a distinctive element on the street, helping it to integrate into an environment that has a overwhelming architectural context and visual presence.

The design also establishes a brand that extends beyond the directional sign program. Starting on the Macarthur causeway, which links Miami Beach to the mainland, a large Miami Beach gateway brands the city for highway travelers as well as the visitors arriving on cruise ships in the Port of Miami. The brand identity will also be utilized on maps, web sites, city communications and as a marketing tool for advertising, merchandise and other promotional materials.

In addition to design revisions such as color, theme and typography, the design development phase, further investigated such elements as profiles, plan views, materials and construction methods.

Upon receiving final approval of the design, the design team has completed this Graphic Standards Manual. The manual provides criteria, specifications and guidelines for the fabrication, implementation, maintenance and management of the system.

We thank all the individuals who took the time and energy to share their ideas and perceptions with us. We deeply appreciate your participation, knowledge and enthusiasm.

SECTIONS

Section A of the Manual provides a message from the city of Miami Beach, an introduction to the signage program, background on how the program was conceived and developed and a brief explanation on how to use the Manual.

Section B provides information regarding the administration and management of the signage system and on the nomenclature and glossary of terms used throughout this Manual.

Section C represents the Graphic Components of the system and the correct usage of symbols, text layouts and other graphic devices. The available Menu of Signs are illustrated in this section. This section should be used for a reference during fabrication for all artwork and typefaces.

Sections E and F illustrate the sign types for the project. Each sign type is represented by a series of drawings, including dimensions, reference view(s), colors, components, processes and graphic layouts.

Sections G provides drawings for the construction and installation details of the signs, including reference views, profiles, plan views and sections.

Section H provides footer details for the installation of the signs.

Section I provides the technical specifications for the sign system. Important information has been developed regarding

Section J contains criteria to assist in choosing a sign and a guide to installation of the system.

SECTION B: **PROGRAM INFORMATION**

Planning, Design and Contract Award

The initial signage system development has been managed by a project manager in the Planning Department. The project manager was responsible for coordinating the activities of the design team, other City departments, public input and regulatory approvals. The project was guided by a Steering Committee, made up of representatives from the City Manager’s Office, Public Works Department, Capital Improvements Office, Visitor and Convention Agency, Convention Center, Parking Department, Economic Development Office, the Florida Department of Transportation and Miami-Dade Public Works Department.

Sign Fabrication, Installation and Maintenance

The Department of Public Works will have a project manager in charge of administering the contract with sign fabricators/installers, as well as a contract with a vendor for cleaning, repair, replacement and removal of all signs. Tasks will include:

- Administer the contract with sign fabricators/installers.
- Maintain a contract with a sign fabricator to store additional parts and to remove and reinstall signs on an as needed basis.
- Maintain a contract with a local installer for any foundation work.
- Maintain a contract for quarterly inspection with as needed cleaning and yearly cleaning of all signs.
- Maintain a vendor contract or supervise employees responsible for daily inspection and removal of stickers and graffiti
- Write a yearly review of the maintenance status of the system.
- Maintain a training program for public works employees concerning proper maintenance standards and procedures for reporting damage.

Maintenance Contract

The City will seek bids for a two-year sign maintenance contract with options to renew annually up to five years. The maintenance contract will include the following:

- Daily sticker and graffiti removal [optional – to be negotiated]
- Quarterly inspection of the entire system with as-needed cleaning
- Yearly cleaning of all signs
- As-needed repair or replacement of damaged signs

Planning for Expansion

Miami Beach Planning Department will continue to have one project person in charge of future sign projects, expansion and deciding on new destination criteria. The Steering Committee from sign system development will meet four times per year on an advisory basis. The Steering Committee will advise on the following topics:

- Additional destinations, name changes, changes in criteria, and the removal of destinations from the system.
- Review of system development, and bids with existing contractors
- Review of maintenance budget and maintenance needs
- Review and respond to neighborhood and business opinions on system expansion or changes.

City of Miami Beach
Citywide Wayfinding Program

For questions regarding the sign program, please refer to the City of Miami Beach and the following departments.

Management

Planning Department
1700 Convention Center Drive
Miami Beach, FL 33139

Tel 305.673.7000
Fax 305.673.7001

Implementation and Maintanance

Department of Public Works
1700 Convention Center Drive
Miami Beach, FL 33139

Tel 305.673.7000
Fax 305.673.7001

Parking

Parking Department
1700 Convention Center Drive
Miami Beach, FL 33139

Tel 305.673.7000
Fax 305.673.7001

DESIGN TEAM

Designer

Hillier
One South Penn Square
Philadelphia PA 19107

Tel. 215.636.9999
Fax. 215.636.9989

Landscape Architect and Local Project Manager

EDAW
777 Seventeenth Street, Suite 200
Miami Beach, FL 33139

Tel: 305.604.5878
Fax: 305.604.5704

Traffic Engineer

F.R. Aleman Assoc.
10305 NW 41 St., Suite 200
Miami, FL 33178

Tel 305.591.8777
Fax 305.591.8749

Structural Engineer

EAC Consulting
815 NW 57th Avenue
Suite 402
Miami FL 33126

Tel 305.264.5507
Fax 305.264.5507

The City of Miami Beach, the Miami Beach Visitor and Convention Bureau, and stakeholders representing major attractions and facilities throughout Miami Beach will partner to create a wayfinding and identity system for the city. This wayfinding system will be designed to project a consistent image for the city; ease vehicular congestion; promote walking and mass transit; and be sustainable as well as expandable.

Goals

- Create a consistent wayfinding and identity system across a range of sign and publication mediums.
- Create a wayfinding system that focuses on directing to major parking garages and destinations.
- To improve wayfinding and visitor information on events in the city.
- To establish wayfinding links to city bike and pedestrian trails.
- To promote Miami Beach’s cultural and arts identity.
- Establish ongoing administration and maintenance of the system.

The Concept

The Miami Beach Coordinated Wayfinding and Identity System consists of three major components:

A. Destination Wayfinding Systems

This collection of gateways, wayfinding signs and arrival signs direct visitors and residents to major destinations around Miami Beach, and adjacent parking garages. The focus of this system is encouraging visitors to park their cars. Some components that make up this system include:

- * District gateway signs for entrances to the city and major business and cultural districts
- District directional signs that include information leading to municipal garages and lots
- Destination directional signs that direct visitors to cultural attractions, public beaches, shopping districts and major government buildings
- Trailblazer directional signs
- Pedestrian wayfinding map and signs
- Pedestrian/bicycle trail signs
- Arrival signs marking the entrance to parking facilities and major cultural institutions
- Street name signs for arterial streets and neighborhood residential streets

- Consistent, simple city map for handout in parking facilities, kiosks and attractions

Destinations will be established based on specific criteria and reviewed by a steering committee. See Sign Criteria for further review.

B. Neighborhood Signage Program (future)

This simple system is oriented towards the unique identities of each neighborhood while creating a coherent streetscape identity for Miami Beach. The focus of this system is a combination of unique neighborhood elements with simple and easy to duplicate signs. These elements can be fit to match the needs of each individual neighborhood in Miami Beach. Components include:

- Standards and initiatives for unique neighborhood gateways (future)
- Standards for neighborhood banners (future)
- Street sign program with neighborhood identity
- Regulatory sign standards (future)

C. Special Event signs, maps and publications (future)

This system is oriented around the large scale events and convention center shows that bring millions of people into Miami Beach each year. Some of the components that make up this system include:

- A banner program oriented around large-scale events, major museum shows, and performances. (This system is already in place)
- Temporary signs and barricades oriented around event wayfinding. (future)
- Review city process for event permitting, oriented to include signs and banners.
- Simple bus shelter and handout maps oriented around special events, and information inserted into other publications.

Responsibilities

The City Manager assigned the Planning Department to take lead responsibility for the planning and design of the Coordinated Wayfinding and Identity System. A Steering Committee is made up of the following departments and stakeholder groups:

City of Miami Beach Planning Dept.

City of Miami Beach Parking Department

City of Miami Beach Convention Center

City of Miami Beach Visitor and Convention Authority

City of Miami Beach Public Works Dept.

City of Miami Beach Tourism/Cultural Development

City of Miami Beach Capital

Improvement Projects Office
City of Miami Beach RDA
City of Miami Beach Finance Department
Miami-Dade County Public Works Dept.
Florida Department of Transportation
District VI Traffic Operations Division

Criteria for Inclusion

The following pages include the Sign Criteria and resulting list of attractions to be included in the vehicular wayfinding system. This work was prepared and endorsed by the Steering Committee during the past year with the assistance of Craig Berger of SEG.D.

1.0 GENERAL DEFINITIONS

The following words and terms, when used in these Guidelines have the following meanings, unless the context clearly indicates otherwise:

Attraction: Includes private businesses, public facilities and agencies, non-profits and other tourism-oriented service facilities

General Public: A service shall be deemed available to the "General Public" if it is available to anyone, at any time, without any membership or other requirement limiting use by the public at large.

Mention: A specific individual listing of an Attraction on a Wayfinding Sign

On-Premise Sign: A sign which is erected upon the same real property the Attraction is located. The sign shall only advertise the Attraction located thereon.

Off-Premise Sign: A sign which erected upon private property that is not contiguous with the parcel that Attraction is located.

Wayfinding Sign: Official Traffic Control Devices installed pursuant to these guideline.

Wayfinding Signing System: The comprehensive network of directional signing under these guidelines

Seasonal Business: Any business which is not operated on a year-round basis

2.0 ELIGIBLE TYPES OF ATTRACTIONS

Courthouse and Municipal Buildings: A building housing the primary offices or for the convening of official legal activities for the city or county.

College or University: An educational institution that grants higher degrees.

Commercial Concentration: A commercial district, enclosed shopping center or commercial corridor containing more than 20 individual stores.

District: A relatively large urban area with defined boundaries that share a common physical, ethnic, cultural or political character.

Historic Site: A structure or place of historical or architectural significance designated by one of the following, the National Register of Historic Places or the City of Miami Beach Historic Preservation Ordinance.

Hospital: An institution providing primary health services and medical or surgical care to person, primary inpatients, suffering from illness, disease, injury, etc. Must be open for emergency care 24 hours a day

Library: A building where books, manuscripts, historic documents, and other information are stored for public access.

Museum: A facility in which works of artistic, historical, or scientific value are cared for and exhibited to the public.

Railroad/Bus Stations: A passenger terminal utilized for discharging and picking up passengers and ticketing.

Convention Center, Theaters, Arts Centers and Performing Arts Centers: A facility for the performing arts, exhibits, conventions or concerts.

Parking Facilities: A structure or lot which provides a minimum of 100 spaces for parking. The parking facility must be owned by the city.

Parks, Public Squares and Recreational Facilities: Any area designated by the City or County as a public park, square, recreation center or golf course.

Visitor Information Center: A facility where the primary purpose of its operation is to provide information and tourist supportive services.

3.0 VISITATION REQUIREMENTS

For an Attraction to be eligible for inclusion in the signing system, it must have a minimum annual visitation of 20,000.

3.1 pedestrian signs: The pedestrian sign program will not contain the specific attendance criteria of the vehicular signs.

3.2 Neighborhood Trailblazers: Signs to hospitals and neighborhoods

3.3 Interstate signs: Destinations on interstate highway signs must fulfill all MUTCD criteria.

4.0 GENERAL ELIGIBILITY REQUIREMENTS

The following general criteria must be met by all attractions in order to be eligible for inclusion in the Wayfinding Signing System.

4.1 General. The Attraction shall be open to all persons regardless of race, color, religion, ancestry, national origin, sex, age or handicap: be neat, clean and pleasing in appearance; be maintained in good repair; and comply with all Federal, State and local regulations and statutes for public accommodations concerning health, sanitation and safety.

4.2 Admission Charges. If a general admission is charged, it shall be collected upon entry and other charges shall be clearly displayed, at the place of entry, as to be readily visible.

4.3 Annual Attendance. There is a minimum annual attendance of 20,000 (The median attendance for all destinations).

4.4 Road System. The location of the Attraction shall not require motorist to perform any illegal movements or U-turns, and the roads shall be capable of handling the anticipated traffic column and types of traffic. Motorists shall be able to readily return to the street or highway and proceed in the original directions of travel after visiting the attraction. This may result in the attraction being required to install signing to guide the motorist to their original directional of travel.

4.5 Parking Accommodation. The Attraction shall have adequate on-premise parking as determined by the Institute of Transportation Engineers Standard for Parking Generation, 1987 for the particular use or have available public or legal permitted on-street parking for patrons.

4.6 Hours of Operation. Attractions other than arenas, schools, colleges/ universities, fairgrounds, and religious sites shall maintain regular hours and schedules and be open to the public for a minimum of 30 days per calendar year.

4.7 Other Signs. The Attraction shall have no illegal advertising signs along any State highway. In addition, no other type of previously approved destination signing will remain in place for any destination, within the right-of-way, including previously approved Tourist Oriented Directional Signs (TODS). Attractions with billboards in violation of City, State and/or Federal laws or regulations will not be authorized to participate in the Signing System.

4.8 On-Premise Sign: The Attraction shall have an On-Premise Sign that is readily visible.

GRAMMAR

Messages must be kept brief. Unnecessary words and punctuation must be avoided.

Sentences must be constructed clearly and decisively. Redundancy must be avoided.

A positive tone must accompany all messages. The use of “only” should be avoided in messages.

Messages should be easily understood by a first-time visitor. Avoid anagrams, abbreviations and cultural lingo.

STYLE

A titling style, where all words begin with a capital letter except for articles, prepositions and conjunctions, is to be used consistently throughout the system.

All signs are to be displayed in non-Italic characters.

Letters and words shall be spaced horizontally and vertically according to the guidelines established by ADA.

Text shall not be tightly spaced to fit on an improperly sized sign.

PUNCTUATION

Punctuation should be avoided where possible.

Hyphens are not to be used in unconventional ways; they should not be used in place of the word “to” or in place of a comma or in place of a dash. Coined words such as Drop-off and Smoke-free must appear hyphenated on all signs.

The ampersand (&) is to be used in place of the word “and” only when connecting two words that belong together because of their function.

GLOSSARY OF TERMS

Arrow: The graphic device as shown in the Manual, used to provide direction.

Attraction: Includes private businesses, public facilities and agencies, non-profits and other tourism-oriented service facilities

Electronic Signage: Computer or manually programmed signs that dynamically provide an illuminated or electronic-type display.

LED: Light emitting diode. Used for electronic display of type.

Mention: A specific individual listing of an Attraction on a Wayfinding Sign

Signage: An organized system of signs, both exterior and interior.

Symbols: A pictorial representation of an object or activity. Also referred to as pictograms or icons.

Wayfinding Sign: Official Traffic Control Devices installed pursuant to these guidelines.

Wayfinding Signing System: The comprehensive network of directional signing under these guidelines

SECTION C: **GRAPHIC STANDARDS**

Futura Light

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 !@#\$%^

Amongst the several mechanic Arts that have engaged my attention, there is no one which I have pursued with so much steadiness and pleasure, as that of Letter Founding.

Letter Spacing

Typography
Acceptable

Typography
NOT Acceptable

Typography
NOT Acceptable

COMMENTS:

Sometimes the Foot mark is mistaken for an apostrophe and an inch mark is mistaken for quotations. Below are examples of correct and incorrect apostrophe's for each typeface.

FUTURA LIGHT

/ This apostrophe is CORRECT.
PARK'S

X This apostrophe is INCORRECT.
PARK'S

Futura Medium

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 !@#\$%^

Amongst the several mechanic Arts that have engaged my attention, there is no one which I have pursued with so much steadiness and pleasure, as that of Letter Founding.

Letter Spacing

Typography
Acceptable

Typography
NOT Acceptable

Typography
NOT Acceptable

COMMENTS:

Sometimes the Foot mark is mistaken for an apostrophe and an inch mark is mistaken for quotations. Below are examples of correct and incorrect apostrophe's for each typeface.

FUTURA MEDIUM

 This apostrophe is CORRECT.
PARK'S

 This apostrophe is INCORRECT.
PARK'S

Futura Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 !@#\$%^

Amongst the several mechanic Arts that have engaged my attention, there is no one which I have pursued with so much steadiness and pleasure, as that of Letter Founding.

Letter Spacing

Typography

Acceptable

Typography

NOT Acceptable

Typography

NOT Acceptable

COMMENTS:

Sometimes the Foot mark is mistaken for an apostrophe and an inch mark is mistaken for quotations. Below are examples of correct and incorrect apostrophe's for each typeface.

FUTURA BOLD

 This apostrophe is CORRECT.
PARK'S

 This apostrophe is INCORRECT.
PARK'S

SOUTHBEACH

Art Deco District	Flamingo Park	Miami Beach Marina
Art Deco Welcome Center	Holocaust Memorial	Ocean Drive
Bass Museum of Art	Jackie Gleason Theater	Old City Hall
Botanical Gardens	Jewish Museum of Florida	Police Station
City Hall	Library	South Pointe Park
Collins Avenue Shopping District	Lincoln Road	South Shore Library
Convention Center	Lummus Park	South Shore Hospital
Espanola Way	Miami City Ballet	Visitors Center
		Wolfsonian Museum

MIDBEACH

21st Street Recreation Center
41st Street Shopping Dist.
Collins Waterfront Historic District
Miami Beach Golf Club
* Miami Heart Institute
Mount Sinai Medical Center
Scott Rakow Youth Center

NORTHBEACH

Byron Carlyle Theater	Ocean Terrace
Normandy Shores Golf Course	Shane Rowing Center
Normandy Village	
North Beach Town Center	
North Shore Open Space Park	
North Shore Bandshell	
North Shore Park	
North Shore Library	

GRAPHIC STANDARDS

VEHICULAR SIGN TYPES

COPY BREAKS
TERMINOLOGY
ABBREVIATIONS

* Name change possible, confirmation prior to fabrication required.

SOUTHBEACH

ArtCenter South Florida
Art Deco District - Hotels
Art Deco District - Residential
Art Deco Welcome Center
Bass Museum of Art
Botanical Gardens
City Hall
Collins Ave. - Shopping
Collins Ave. - Hotels
Colony Theater
Convention Center
Dining and Shopping
Espanola Way
Flamingo Park
Holocaust Memorial
Jackie Gleason Theater
Jewish Museum of Florida
Latin Visitors Center
Lincoln Road
Lincoln Theater

MIDBEACH

Lummus Park
Miami City Ballet
Miami Beach Marina
New World Symphony
Ocean Drive
Old City Hall
Police Station
Post Office
Public Library
South Pointe Park
South Shore Community Center
South Shore Library
South Shore Hospital
Visitors Center
Washington Avenue
Wolfsonian Museum
Lincoln Road Attractions
Lincoln Theater
New World Symphony
ArtCenter South Florida
Colony Theater
Latin Visitors Center
Dining and Shopping

NORTHBEACH

Altos Del Mar Historic District
Byron Carlyle Theater
Normandy Village
North Beach Town Center
North Shore Bandshell
North Shore Park
North Shore Library
Ocean Terrace
Shane Rowing Center

ARROWS AND TEXT RELATIONSHIPS

Always measure from baseline to baseline.
Please Reference to the arrow detail below.



COPY HEIGHT

When measuring copy height, measure only the height of the Capital letters to determine your overall copy height shown in illustration below as "X."
Some of the other letters have an extended height beyond the average height of the letters.



LINE SPACING

When measuring line spacing, always measure from the baseline of the topmost text line to the baseline of the text line below shown as "X."



COMMENTS:
This should serve as a general guide in determining the letter spacing and line spacing of copy as well as the copy height.

MIAMIBEACH

Miami Beach 1

NORTHBEACH

North Beach 1

SOUTHBEACH

South Beach 1

MIAMI
BEACH

Miami Beach 2

NORTH
BEACH

North Beach 2

SOUTH
BEACH

South Beach 2

MIDBEACH

Mid Beach 1

Logo Usage Standards - NOT ACCEPTABLE

~~MIAMIBEACH~~

~~MIAMIBEACH~~

~~MIAMIBEACH~~

~~MIAMIBEACH~~

~~BEACHMIAMI~~

~~MIAMIBEACH~~

~~MIAMIBEACH~~

~~MIAMI
BEACH~~

~~MIAMI
BEACH~~

~~NORTH
BEACH~~

~~NORTHBEACH~~

~~NORTHBEACH~~

GRAPHIC STANDARDS

PROJECT ARTWORK:
LOGOS

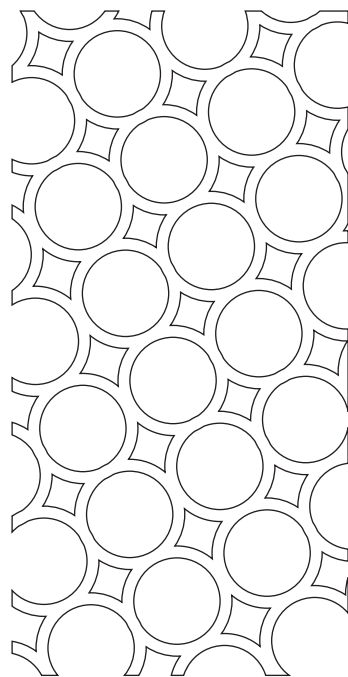
COMMENTS:
This page provides a reference for
the standard logotypes to be used throughout.

Modifications to the logotype is not acceptable.

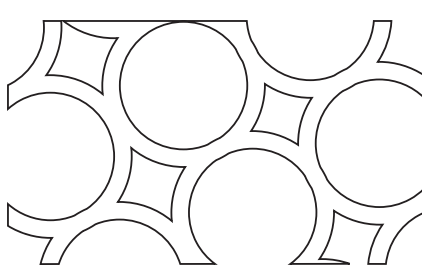
The color or material of the logotype can be changed
as appropriate per sign as indicated in the sign drawings.

PROJECT ARTWORK:
PATTERNS

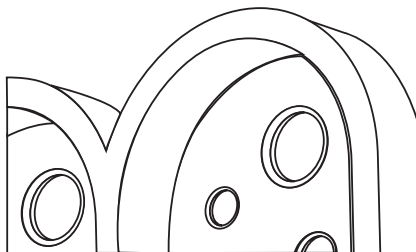
Pattern 1



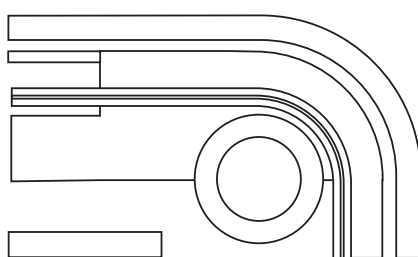
Pattern 2



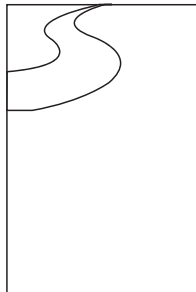
Pattern 3



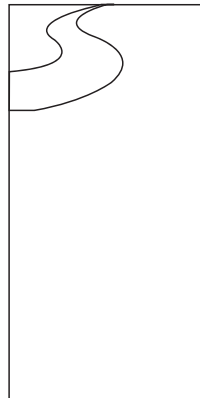
Pattern 4



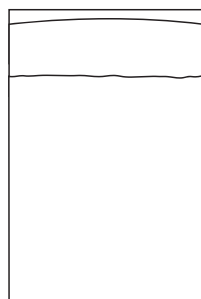
Panel 1



Panel 1B



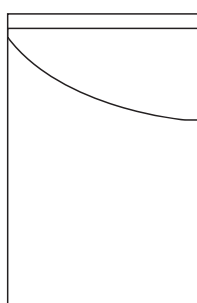
Panel 2



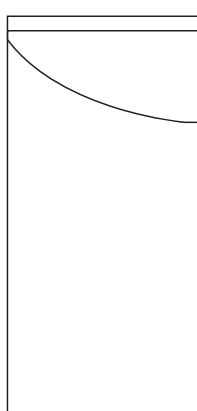
Panel 2B



Panel 3



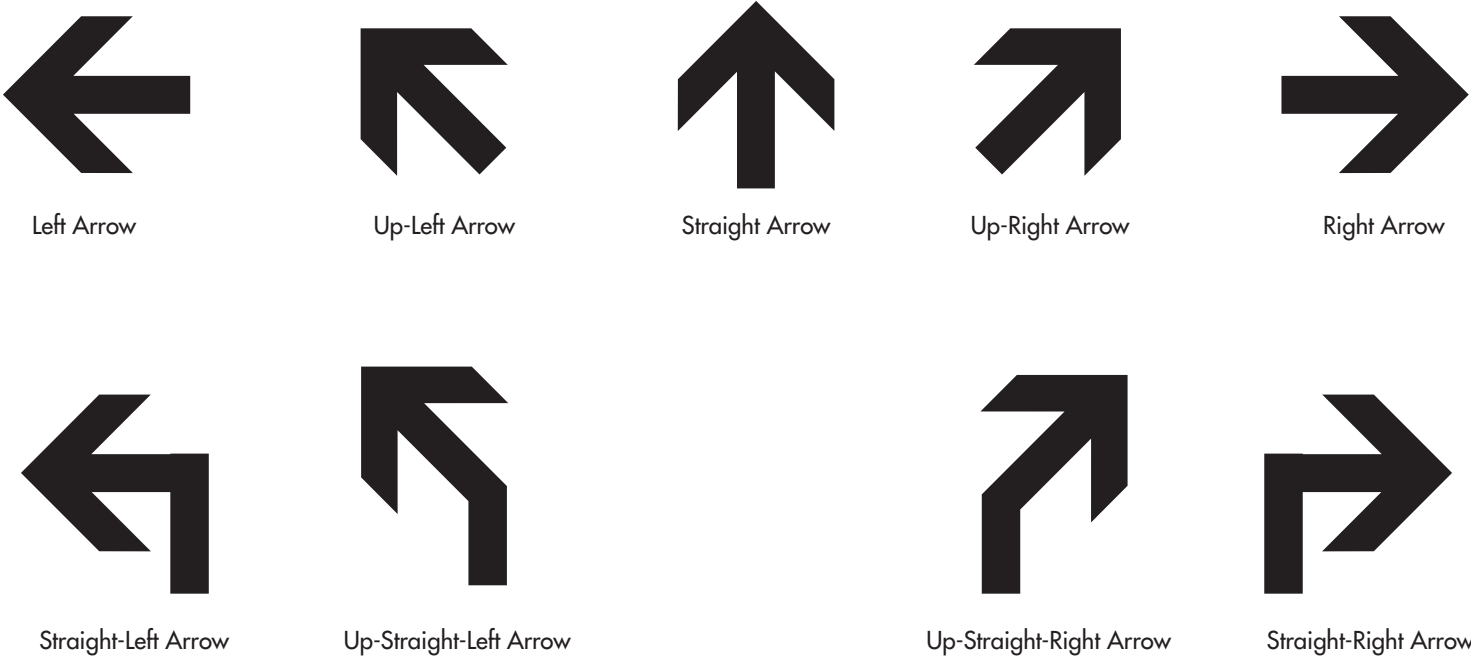
Panel 3B



COMMENTS:
This page provides a reference for the
standard patterns to be used throughout.

The use of similar or modified patterns are not acceptable.

The color or material of the patterns can be changed
as appropriate per sign as indicated in the sign drawings.



COMMENTS:

USE of ARROWS

When multiple directions are required on a sign, the following directional hierarchy shall take precedent. See Example Below. Reference Message Schedule for individual messages.

-  Straight Arrow
-  Left Arrow
-  Right Arrow

COLORS

P PAINTS		NAME	SPECIFICATION	PROCESS
P1		Deep Ocean	Benjamin Moore 2058-30	Surface painted, with Mathews Polyurethane Clear Coat Protectant
P2		Blue	Benjamin Moore 2066-10	Surface painted, with Mathews Polyurethane Clear Coat Protectant
P3		Silver	MAP Brushed Alum. 41-342, VOC 281-342 Silver	Surface painted, with Mathews Polyurethane Clear Coat Protectant
P4		Snow Cone Green	Benjamin Moore 2026-30	Surface painted, with Mathews Polyurethane Clear Coat Protectant
P5		White	Benjamin Moore 2142-70	Surface painted, with Mathews Polyurethane Clear Coat Protectant
P6		D.O.T. Green	Color Match Florida D.O.T. Specifications	Surface painted, with Mathews Polyurethane Clear Coat Protectant
P7		Webster Green	Benjamin Moore Classic HC-130	Surface painted, with Mathews Polyurethane Clear Coat Protectant
P8		Linen Sand	Benjamin Moore 2151-60	Surface painted, with Mathews Polyurethane Clear Coat Protectant
P9		Tropicana Cabana	Benjamin Moore 2048-50	Surface painted, with Mathews Polyurethane Clear Coat Protectant
V VINYLs				
V1		White Reflective	3M Scotchlite Plus 680-10	Surface Applied
V2		Snow Cone Green Reflective	3M Scotchlite Plus 680-10 Custom Match Color BM 2026-30	Surface Applied
V3		Blue Reflective	3M Scotchlite Plus 680-10 Custom Match Color BM 2066-10	Surface Applied
V4		D.O.T. Green Reflective	3M Scotchlite Plus 680-10 Color Match Florida D.O.T. Specifications	Surface Applied
V5		Deep Ocean Reflective	3M Scotchlite Plus 680-10 Custom Match Color BM 2058-30	Surface Applied
M MATERIALS/FINISHES				
M1		Aluminum	Polished	High Polish finish
M2		Aluminum	Brushed	Horizontal Brushed
M3		Red Concrete	Miami Beach mix code #1300248	Colored

COMMENTS:
The Color Chart found on this page provides a reference for specifying a paint color or material.

The Fabricator is required to submit painted color chips and material samples for approval prior to sign fabrication.

Any vinyls used in the project shall be a 3M or comparable standard or custom color. Vinyls must match project colors.

GATEWAYS
ZONE DIRECTIONALS

SCALE: 1/4"=1'-0"

DESCRIPTIONS:

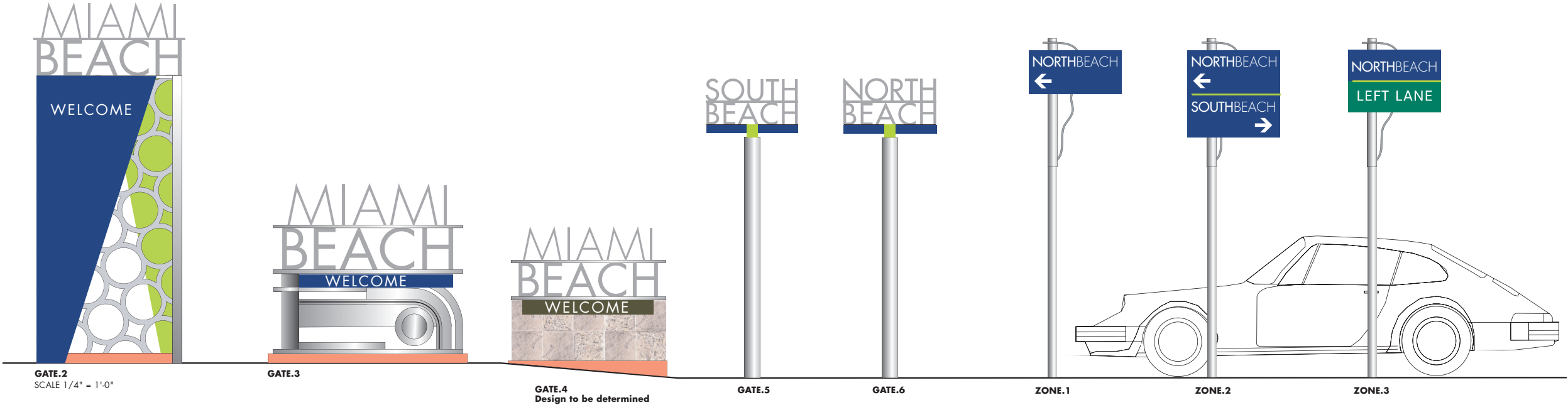
GATE.2
Located at Harding Avenue, this Gateway sign marks one's arrival into Miami Beach from the North. This landmark icon is ceremonial and not located at the city limits.

GATE.3
Located at 5th and Lenox, this Gateway sign marks one's arrival into Miami Beach from the MacArthur Causeway. Located in the median island on 5th Avenue, this landmark icon is ceremonial and not located at the city limits.

GATE.4
Located on the Venetian Causeway, this Gateway sign marks one's arrival into Miami Beach. This landmark icon is ceremonial and not located at the city limits.

GATE.5 and 6
Located at Zone Transition Points, these Gateway signs marks one's arrival into South Beach or North Beach. Transition into the Mid Beach zone will not be identified.

ZONE.1, 2 and 3
Located throughout the city, these sign types direct vehicular traffic to the South Beach or North Beach zones. Direction to the Mid Beach zone will not be given.



DESTINATION
DIRECTIONALS

SCALE: 1/4"=1'-0"

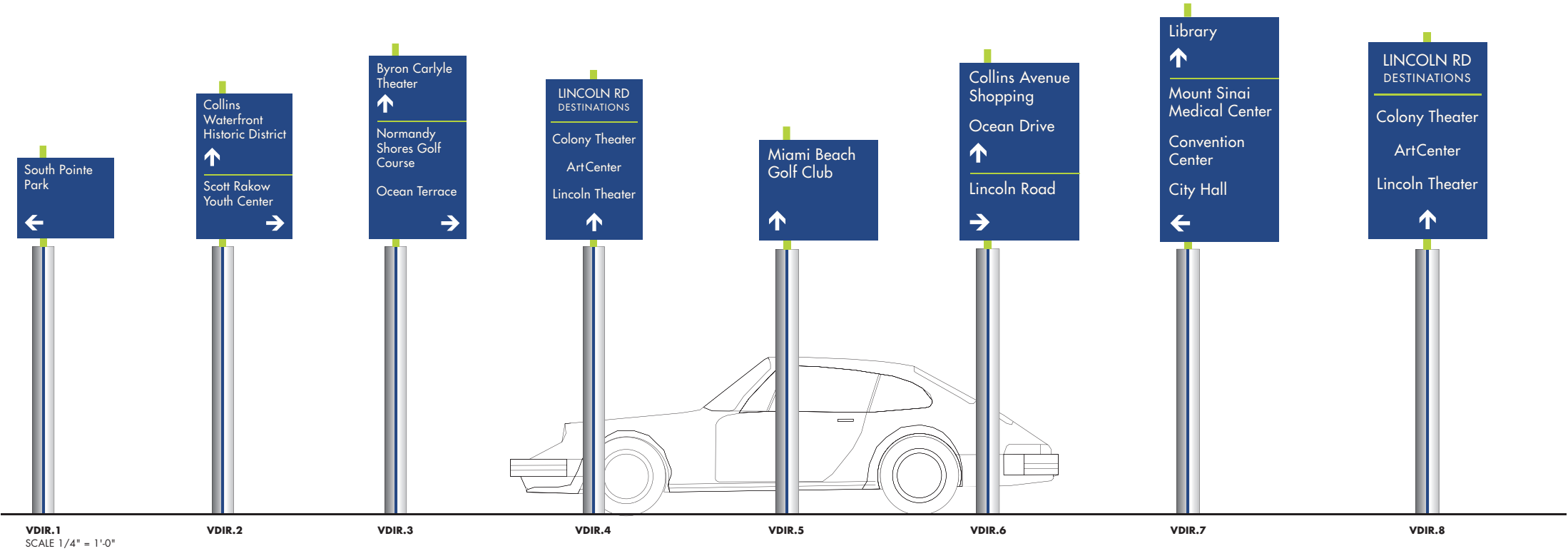
DESCRIPTIONS:

VDIR.1, 2, 3 and 4
Located within the 3 city zones on lower speed city streets, these sign types direct vehicular traffic to Destinations. 3 1/2" high copy is used in the graphic layout.

VDIR.4
Located within the South Beach zone on lower speed city streets, these sign types direct vehicular traffic to Lincoln Road and it's specific Destinations. 3 1/2" high copy is used in the graphic layout.

VDIR.5, 6, 7 and 8
Located within the 3 city zones on higher speed county streets, these sign types direct vehicular traffic to Destinations. 4" high copy is used in the graphic layout, as required by Florida D.O.T.

VDIR.8
Located within the South Beach zone on higher speed county streets, these sign types direct vehicular traffic to Lincoln Road and it's specific Destinations. 4" high copy is used in the graphic layout, as required by Florida D.O.T.



PARKING

SCALE: 1/4"=1'-0"

DESCRIPTIONS:

PARK.1
Located within the 3 city zones, these trail-blazer sign types direct vehicular traffic to public and private parking lots. Signs are mounted to existing light poles, wherever possible, to avoid sign clutter.

PARK.2
Located within the 3 city zones, these sign types identify specifically named public and private parking lots. Signs are mounted to existing light poles at the lot entrance, wherever possible, to avoid sign clutter.

PARK.3
Located within the 3 city zones, these sign types identify specifically named public and private parking lots. Signs are ground mounted at the lot entrance in open space areas.

PARK.4
Located within the South Beach zone, these sign types identify specifically named public and private parking lots, for Lincoln Road and it's specific destinations. Signs are ground mounted at the lot entrance in open space areas.

PARK.5
Located within the South Beach zone, these sign types identify specifically named public and private parking lots, for the Convention Center. Signs are ground mounted at the lot entrance in open space areas and display any regulatory or event information.

DEPT.1
Located throughout the city, these departure sign types direct vehicular traffic to Interstate and County Roads. Signs are ground mounted to match the City of Miami Beach and Florida DOT methods.



DESTINATION IDENTIFICATION
BEACH ACCESS
HOTEL DIRECTIONAL
NEIGHBORHOOD

SCALE: 1/4"=1'-0"

DESCRIPTIONS:

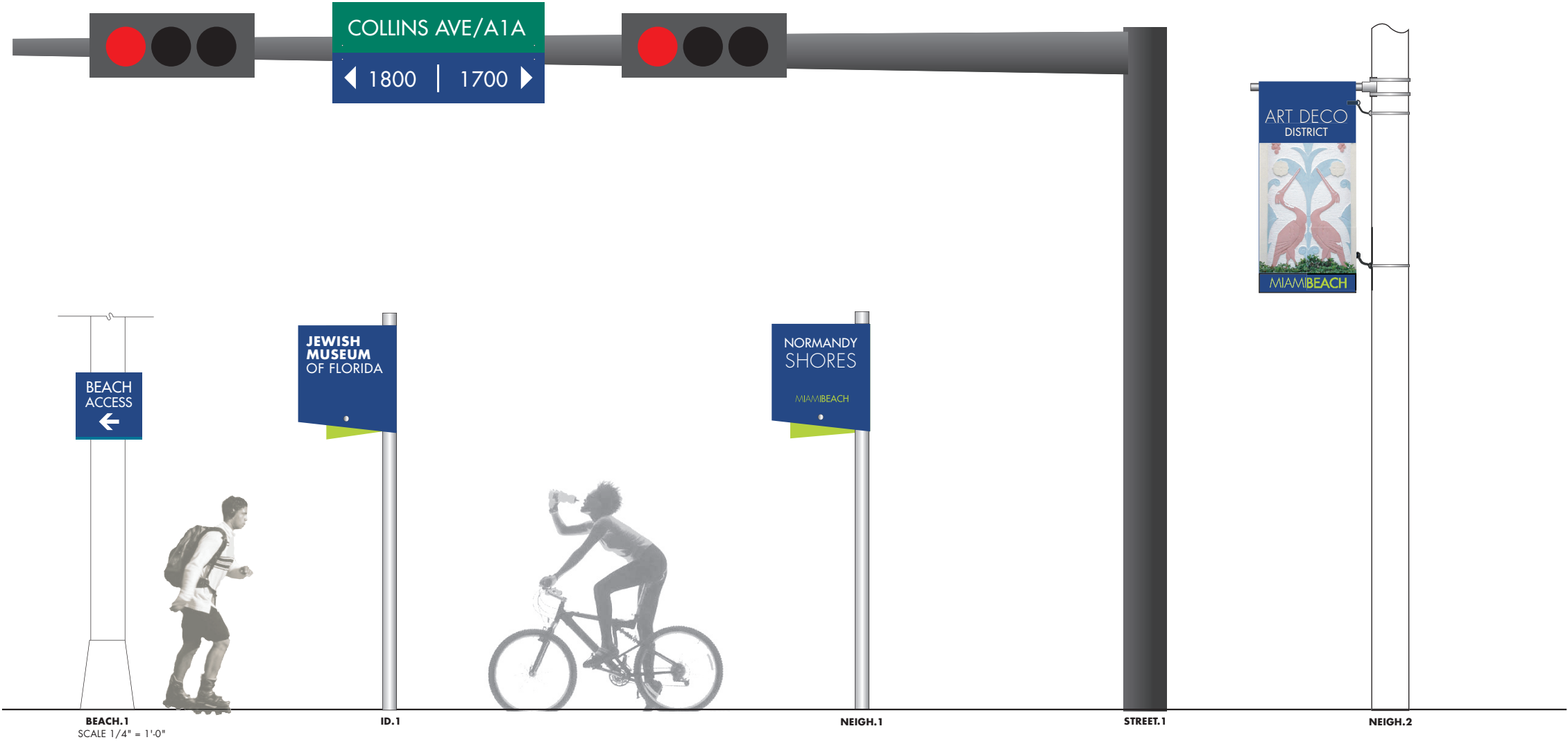
BEACH.1
Located in the 3 zones, this sign type directs vehicular and pedestrian traffic to Street/ Beach transition points. Signs are mounted to existing light poles, wherever possible, to avoid sign clutter.

ID.1
A vehicular sign that marks the arrival to a destination, usually located near the entrance of the destination.

NEIGH.1
Located within the 3 city zones, these signs identify the transition into Neighborhoods. Signs are ground mounted and located at the ceremonial boundary of each Neighborhood.

NEIGH.2
Located within the 3 city zones, these signs identify the transition into Neighborhoods. Signs are mounted to existing light poles and spaced throughout the Neighborhood. The design image and icons are derived from the characteristics of each Neighborhood.

STREET.1
Located within South Beach at the intersection of Collins Ave., this sign type provides orientation and directs to "Hotel Street Addresses". Signs are mounted to existing Traffic Signals, wherever possible, to avoid sign clutter.



PEDESTRIAN

SCALE: 1/2"=1'-0"

DESCRIPTIONS:

PED.1, 2, 3

Located within the the 3 city zones, these signs direct pedestrian traffic to adjacent zones and destinations. Signs are ground mounted at prominent open space areas. The design details and icons are derived from the characteristics of each zone. Interpretive Graphic Panels and Maps can also be used as alternate layout configurations

PED.4

Located within the 3 city zones, these signs direct pedestrian traffic to adjacent zones and destinations. Signs are mounted to existing light poles, wherever possible, to avoid sign clutter.

PED.4B

Located within the 3 city zones, these signs direct pedestrian traffic to adjacent zones and destinations. Signs are ground mounted and bracketed to custom poles.

PED.5

Located within the 3 city zones, these signs orient pedestrian traffic with a heads up map of the local area. Signs are mounted to existing light poles, wherever possible, to avoid sign clutter.

PED.5B

Located within the 3 city zones, these signs orient pedestrian traffic with a heads up map of the local area. Signs are ground mounted and bracketed to custom poles.

PED.6

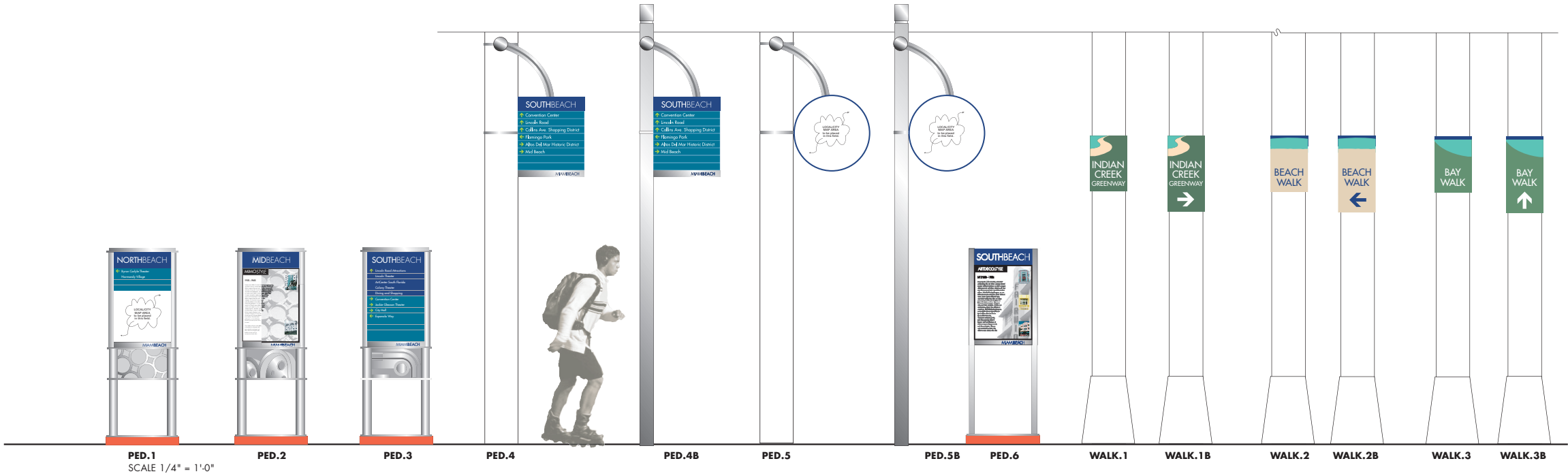
Located within the 3 city zones, these interpretive signs are informational and positioned near historically significant landmarks, neighborhoods or locations.

WALK.1, 2, 3

Located within the 3 city zones, these signs identify city walking paths. Signs are mounted to existing light poles, wherever possible, to avoid sign clutter.

WALK.1B, 2B, 3B

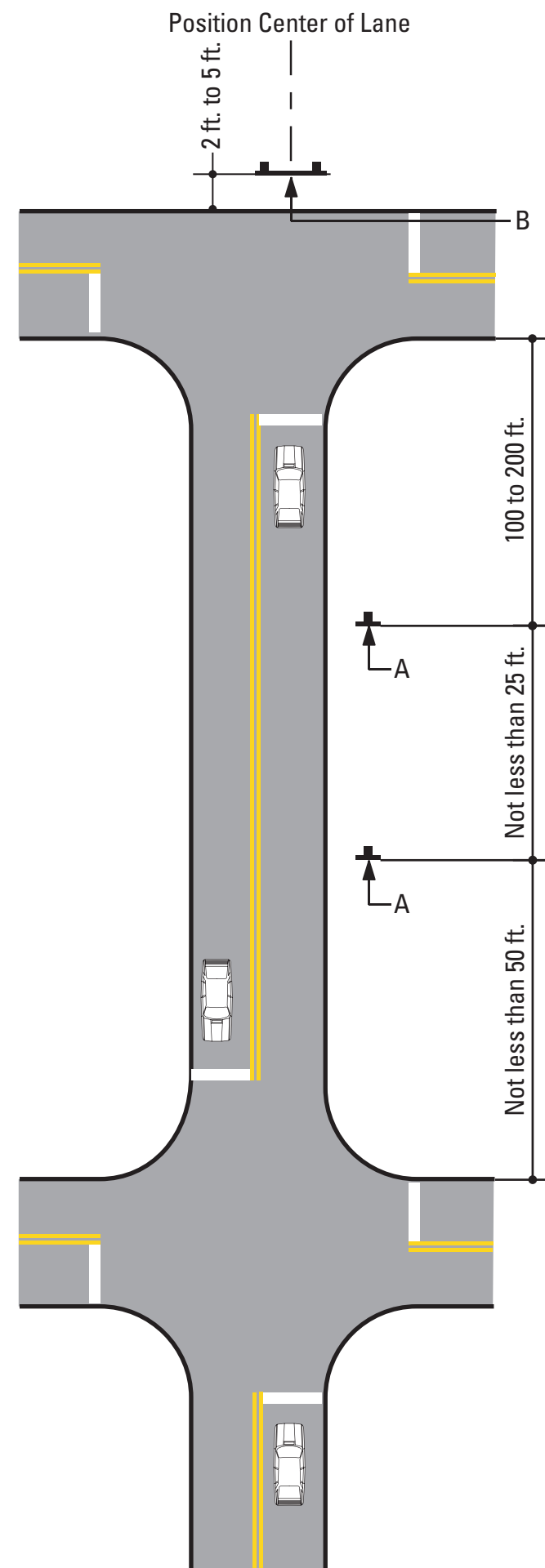
Located within the 3 city zones, these signs direct pedestrian traffic to city walking paths. Signs are mounted to existing light poles, wherever possible, to avoid sign clutter.



FINAL DESIGN AND SPECIFICATIONS TO BE DETERMINED

COMMENTS:

SECTION D: **PLACEMENT GUIDELINES**



SIGN PLACEMENT GUIDELINES

FIGURE 1

Unless approved by the City of Miami Beach or its designated agent, all signs shall be installed to the right of the direction of traffic and where sufficient space is available.

(a) Signs should be located to take advantage of natural terrain, to minimize impacts on scenic environment and to avoid visual conflicts with other signs, trees and lampposts within the City right-of-way.

(b) Signs shall be located so as not to interfere with, obstruct or divert driver's attention from any other Official Traffic Control Device. Other Official Traffic Control Devices placed at intersection approaches, subsequent to the placement of a Wayfinding Sign, shall have precedence as to location and may require the relocation of the Wayfinding Sign. In the locations where Official Traffic Control Devices are integrated into the Wayfinding Signage System, the Official Traffic Control Devices shall take precedence with regard to order, space and location, over other information.

(c) Wayfinding Signs should be positioned in such a manner that does not restrict driver's attention or view when making turns or driving through an intersection.

(d) There should be a goal of one sign per block, although two are permissible, where necessary.

The following pages illustrate installation guidelines for the location and spacing of the various sign types. Figures 1-6 represent the guidelines for the location of the various sign types, while Figure 7 illustrates the lateral clearance guidelines.

Figure 2

Sign C

PARKING DIRECTIONAL

Sign D

DESTINATION ARRIVAL

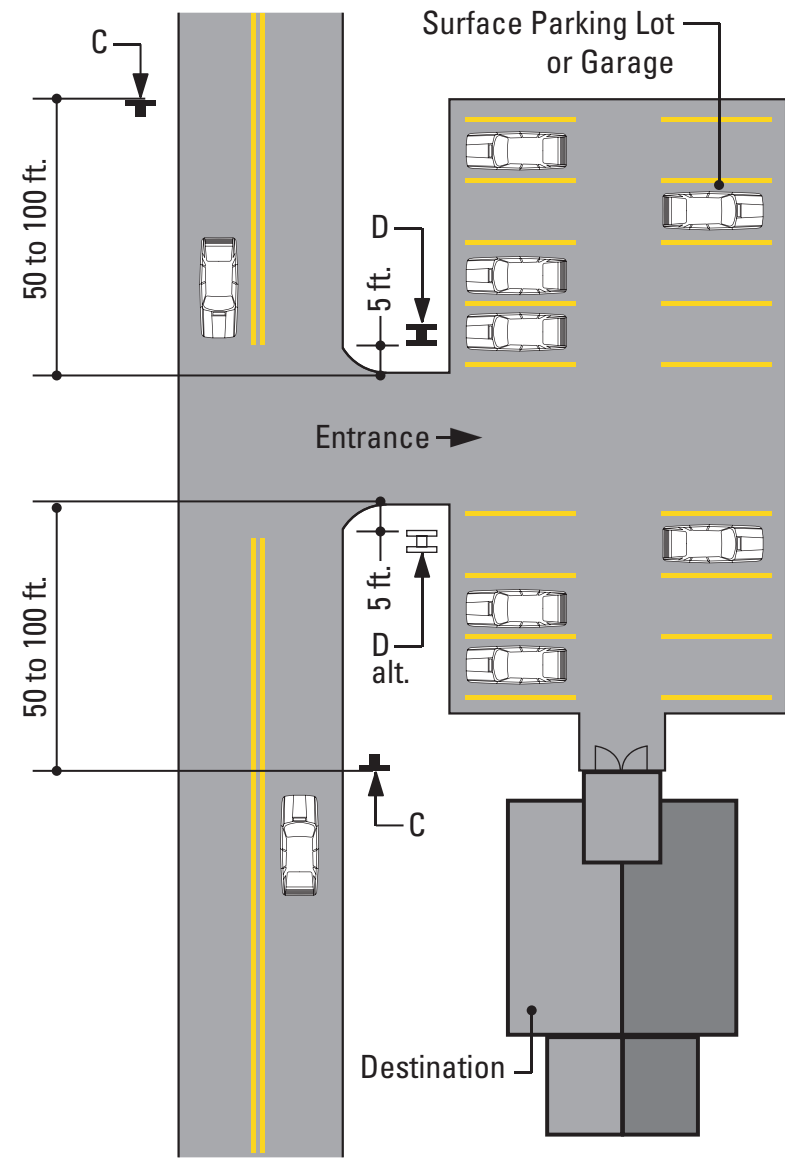
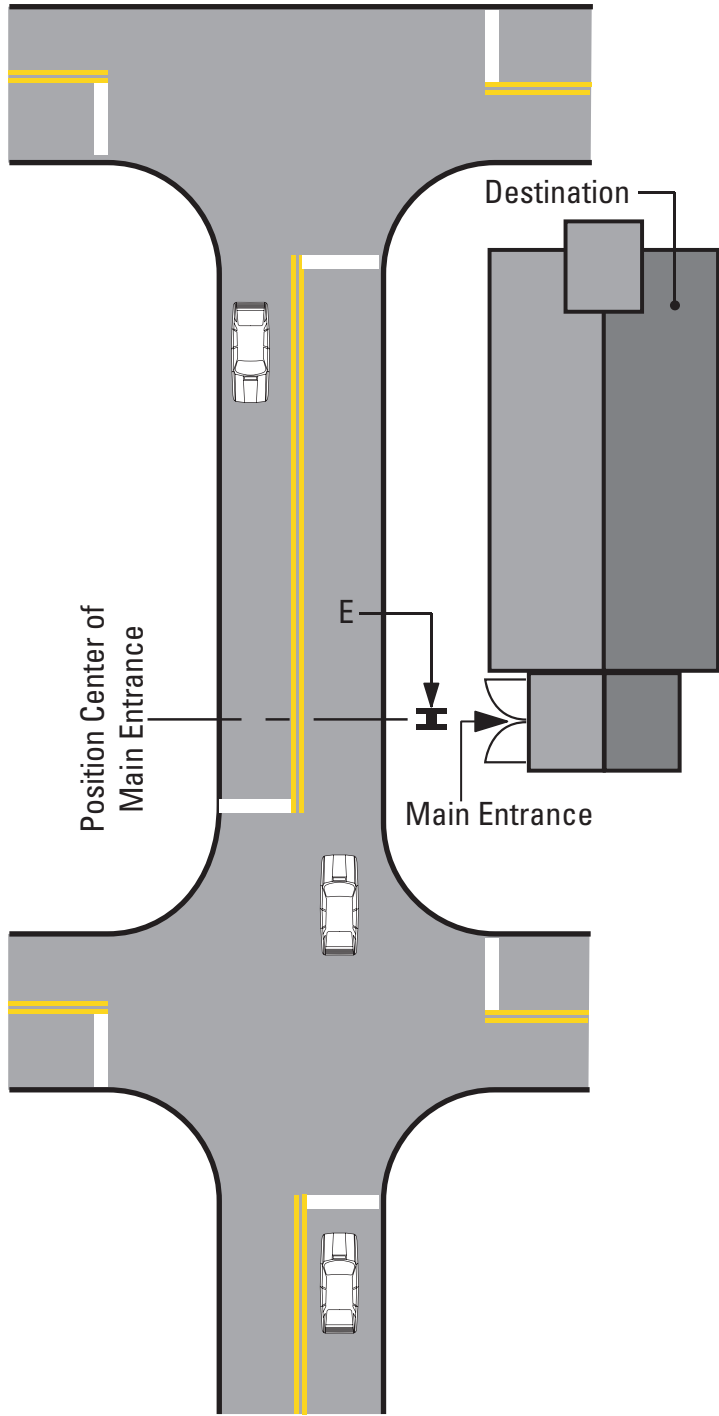


Figure 3

Sign D

DESTINATION ARRIVAL



COMMENTS:

Figure 4

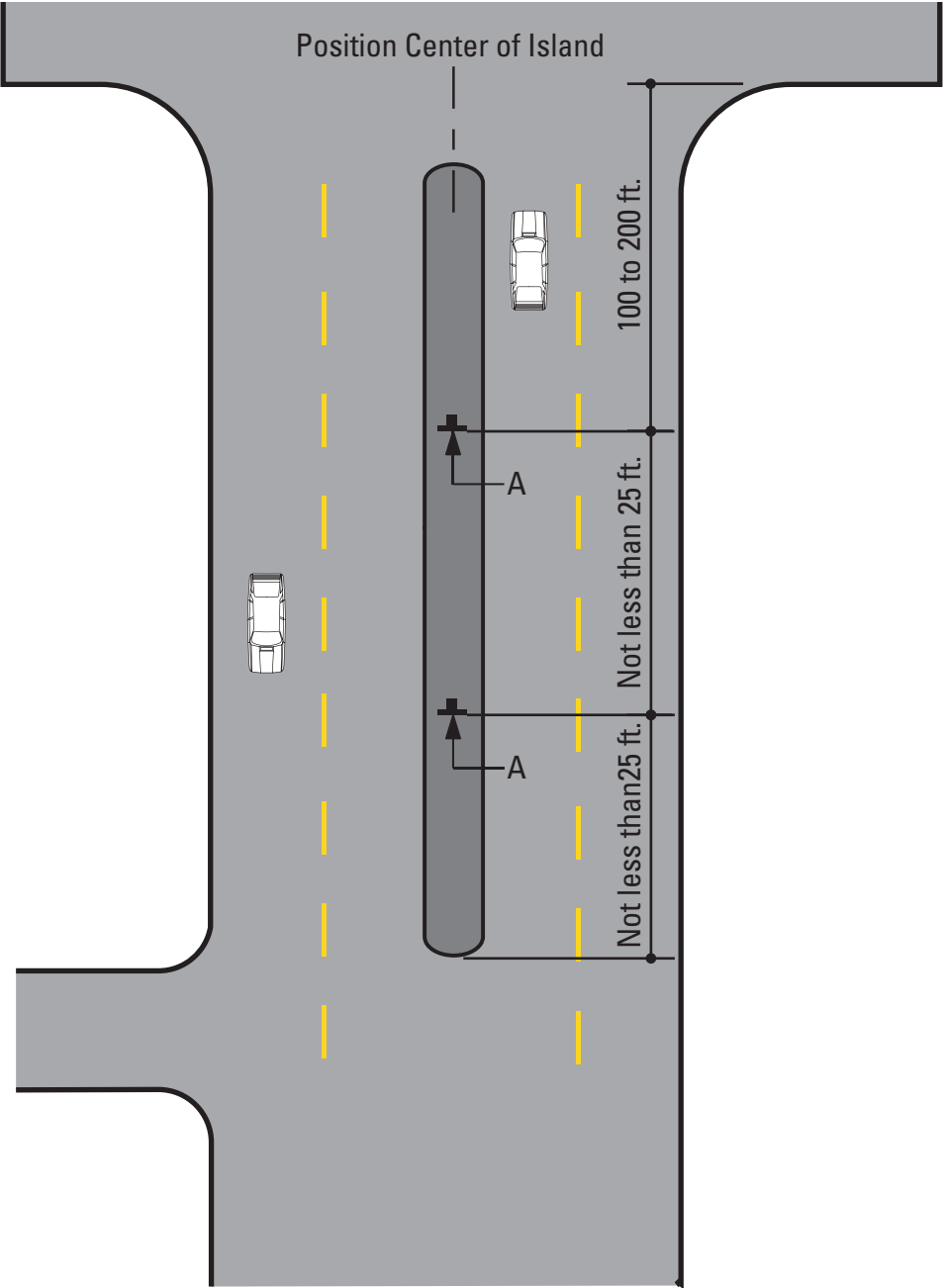
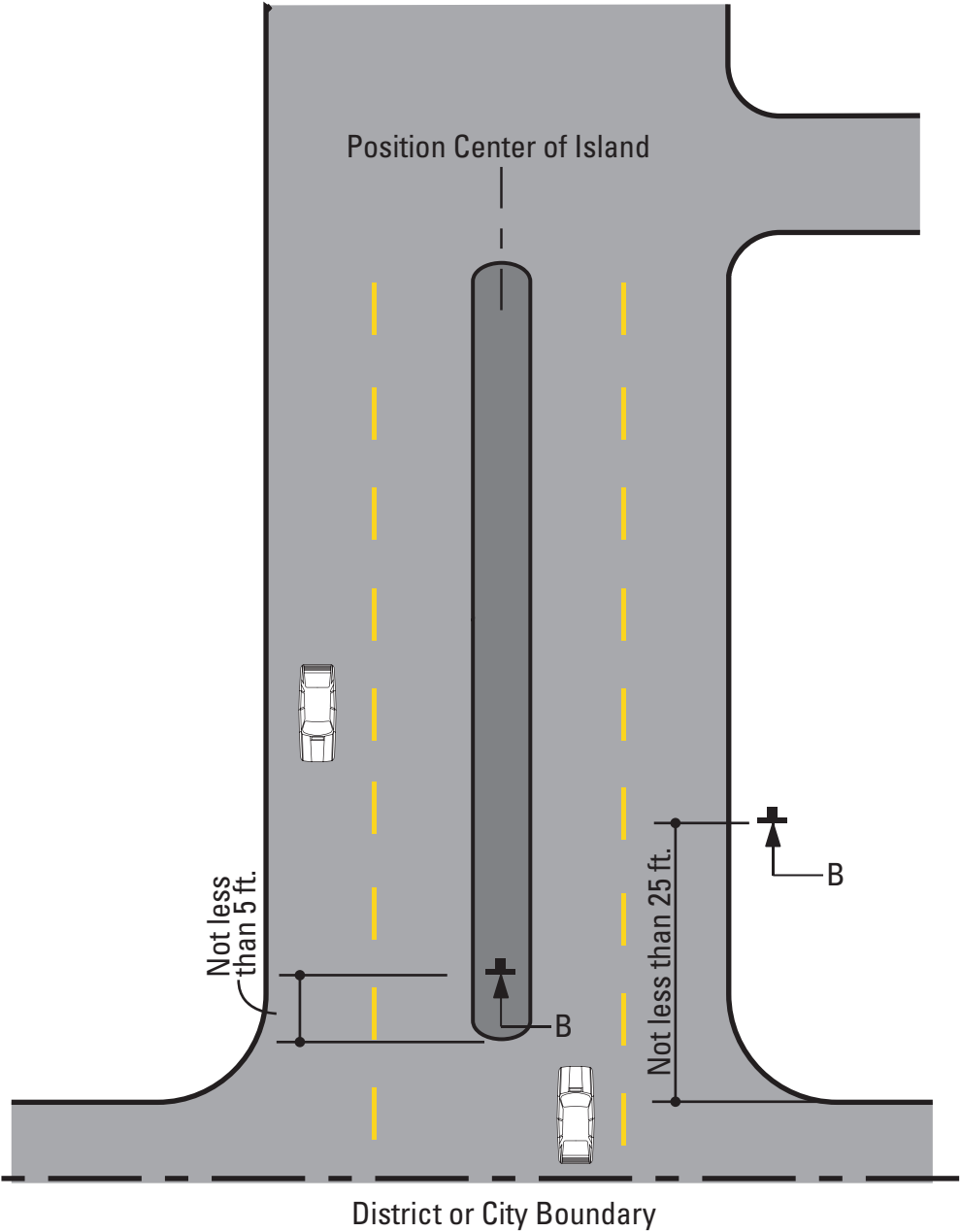
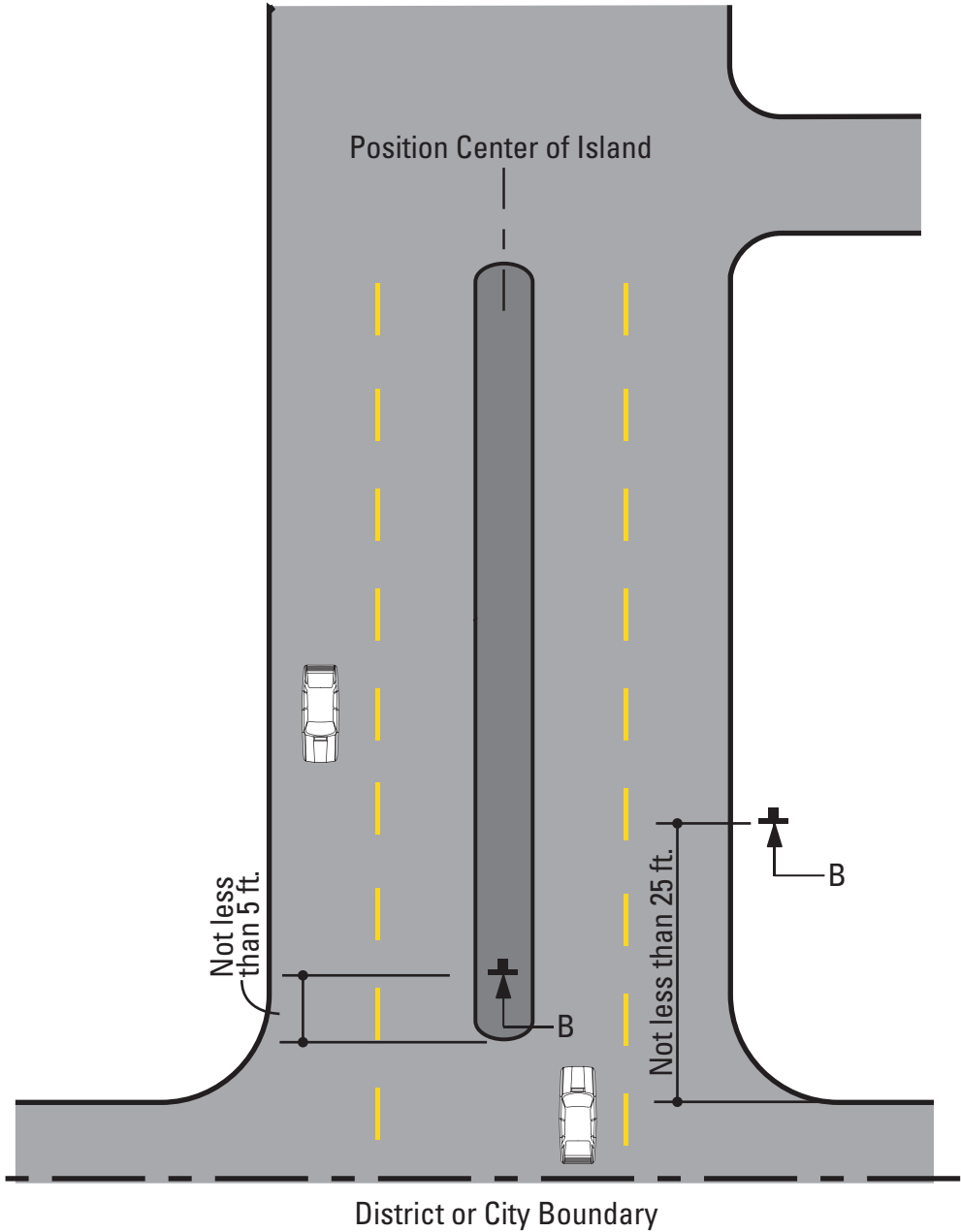


Figure 5

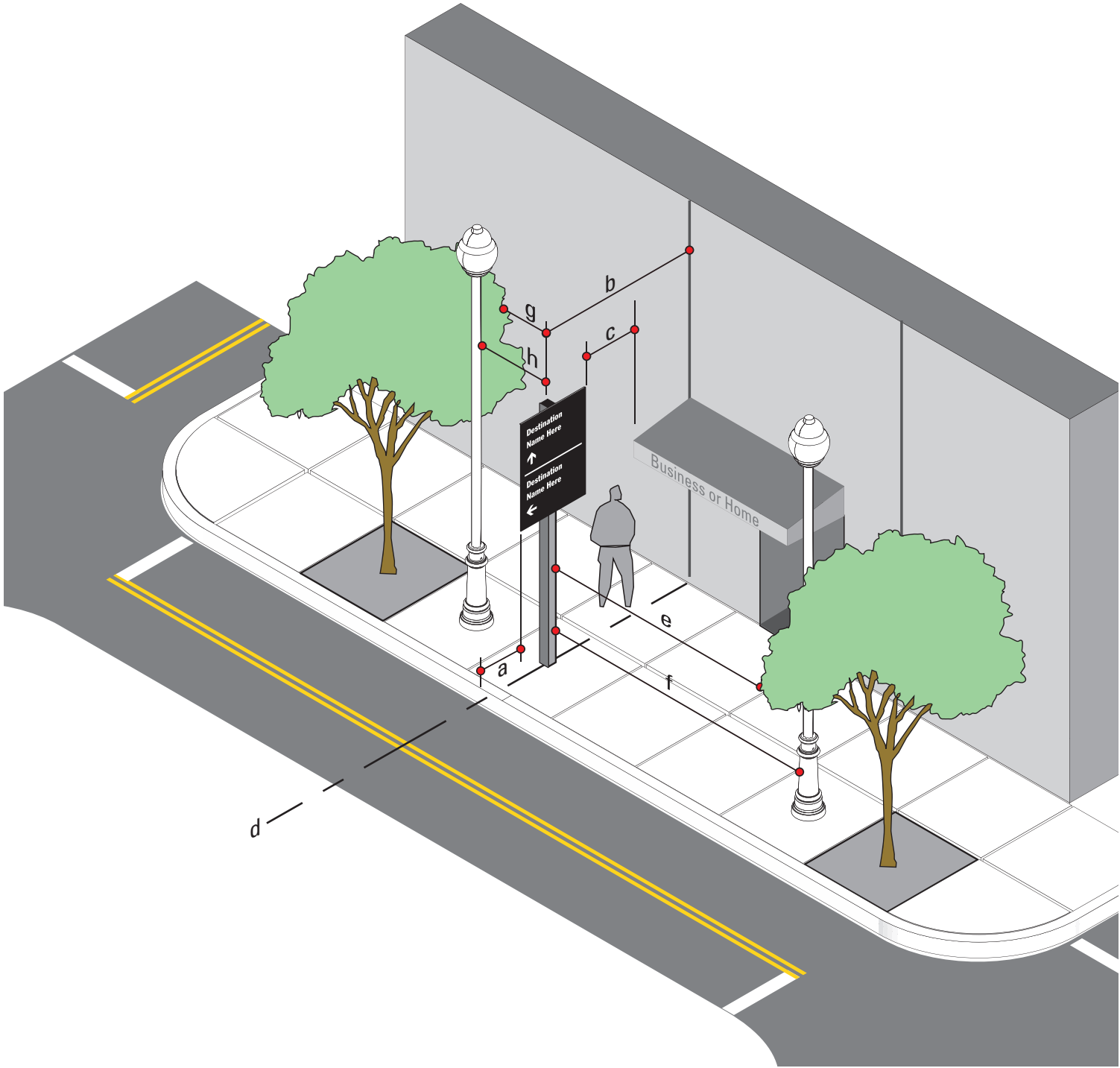


COMMENTS:



COMMENTS:

FIGURES 7



MEASURE		PREFERRED DISTANCE	MINIMUM DISTANCE
a	Distance from Edge of Sign Panel to Edge of Curb	1' - 6" or more	1' - 0"
b	Distance from Sign Post to Nearest Obstruction	4' - 0" or more	3' - 0"
c	Distance from Edge of Sign Panel to Nearest Overhead Obstruction	4' - 0" or more	1' - 0"
d	Sign Placement in Relation to Adjacent Building	align to building Edge	Do Not obstruct Entrance
e	Distance from Face of Sign to Nearest Tree Branch	20' - 0" or more	15' - 0"
f	Distance from Face of Sign to Nearest Utility Pole	15' - 0" or more	10' - 0"
g	Distance from Back of Sign to Nearest Tree Branch	8' - 0" or more	3' - 0"
h	Distance from Back of Sign to Nearest Utility Pole	15' - 0" or more	10' - 0"

Measurements and Distances shown are guidelines only prevailing local and state codes shall supersede information presented.

SIGN TYPE	DISTANCE EDGE OF CURB to EDGE OF SIGN PANEL	DISTANCE TO CENTER OF POST
GATE.5 & 6	2' - 0"	3' - 6"
GATE.5 & 6	1' - 6"	3' - 0"
GATE.5 & 6	1' - 0"	2' - 6"
ZONE.1, 2 & 3	2' - 0"	2' - 9 3/8"
ZONE.1, 2 & 3	1' - 6"	2' - 3 3/8"
ZONE.1, 2 & 3	1' - 0"	1' - 9 3/8"
VDIR.1, 2, 3, 5, 6 & 7	2' - 0"	2' - 9 5/8"
VDIR.1, 2, 3, 5, 6 & 7	1' - 6"	2' - 3 5/8"
VDIR.1, 2, 3, 5, 6 & 7	1' - 0"	1' - 9 5/8"
VDIR.4	2' - 0"	3' - 6"
VDIR.4	1' - 6"	3' - 0"
VDIR.4	1' - 0"	2' - 6"
VDIR.8	2' - 0"	3' - 9"
VDIR.8	1' - 6"	3' - 3"
VDIR.8	1' - 0"	2' - 9"
PARK. 4 & 5	2' - 0"	3' - 9" **
PARK. 4 & 5	1' - 6"	3' - 3" **
PARK. 4 & 5	1' - 0"	2' - 9" **
PED.1,2 & 3	2' - 0"	3' - 4" **
PED.1,2 & 3	1' - 6"	2' - 10" **
PED.1,2 & 3	1' - 0"	2' - 4" **
ID.1 & NEIGH.1	2' - 0"	2' - 2 1/2"
ID.1 & NEIGH.1	1' - 6"	1' - 8 1/2"
ID.1 & NEIGH.1	1' - 0"	1' - 2 1/2"
** Double Post Sign - Measuremnt shown is to the centerline of sign panel.		
Note: Sign types PARK.1,2,& 3, PED.4 & 5, WALK. 1,2 & 3 and BEACH.1mount to existing posts or structures. A minimum distance of 1' - 0" to edge of sign panel shall be maintained		

SECTION E: **DESIGN DRAWINGS
VEHICULAR SIGN SYSTEM**

SPECIFICATIONS:

1. DIMENSIONAL LETTERS

Product: Channel Letters
Material: Aluminum
Fabrication Process: Routed/ Fabricated/ Backs Capped
Fastener: Weld to Bracket
Edges: Smooth
Illumination: External
Surface Process: Chrome Polish Finish all exposed surfaces
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

2. BRACKET

Material: 1/2" Thk. Alum.
Fabrication Process: Cut
Fastener: Weld to Dimensional Letters / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

33. CONCRETE BASE

Material: Concrete
Process: PreCast
Edges: 1/2" Radius top
Finish: Smooth
Color: Match Miami Beach Red Concrete Mix Code No.1300248
Approval No. MB05
Reference Footer Section H for Mounting and Footer Details

42. BODY PANEL ASSEMBLY

Material: 3/16" Thk. Alum.
Fabrication Process: Cut/ Breakformed
Fastener: Weld to Dimensional Letters / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

Material: 1/8" Thk. Alum.
Size: 4" x 6" Square
Fabrication Process: Extruded / Cut to length/ Weld Flanges
Fastener: Mechanically Fasten to Body Panel/ Weld to Bracket
Surface Process: Paint all exposed surfaces
Under Coat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

43. GRAPHIC

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

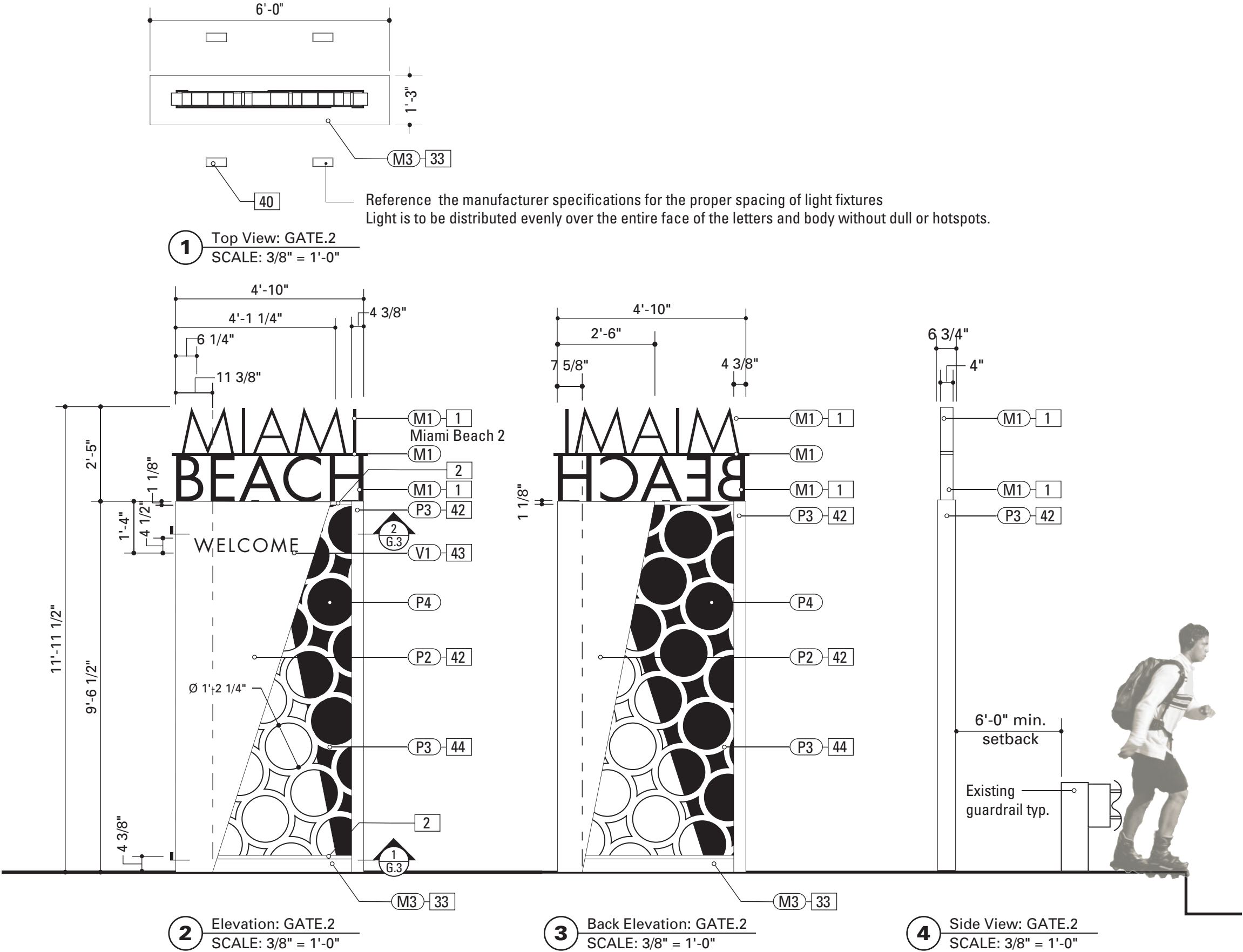
44. DIMENSIONAL GRAPHIC PANEL

Product: Dimensional Channel Letters/Pattern
Material: Aluminum
Fabrication Process: Routed/ Fabricated/ Backs Tops Capped
Fastener: Weld to Bracket / Inner Posts
Edges: Smooth
Illumination: External
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

40. UPLIGHT FIXTURE

Manufacturer: Color Kinetics 1-888-FULLRGB
Product: ColorBlast 12
Type: Indoor/ Outdoor Color Changing LED
Process: External
Fasten: Recess into Adjacent Ground
QTY: Approx. 4 (to be determined by Fabricator)
Data Interface: Color Kinetics Data Enabler
Control: Color Kinetics Light System Manager

Note: Provide tempered glass protective cover over recessed light fixture and Housing. All equipment and Glass is to be installed with concealed fasteners or tamper resistant hardware.



SPECIFICATIONS:

33. CONCRETE BASE

Material: Concrete
Process: PreCast
Edges: 1/2" Radius top
Finish: Smooth
Color: Match Miami Beach Red Concrete Mix Code No.1300248
Approval No. MB05
Reference Footer Section H for Mounting and Footer Details

50. DIMENSIONAL LETTERS/ LIGHT BAND

Product: Reverse Channel Letters
Material: Aluminum
Fabrication Process: Routed/ Fabricated/ Backs Capped/ Front Open
Fastener: Weld
Edges: Smooth
Illumination: Internal
Lighting: Internal/ Exposed
* note: lighting is to mimic the design look and function of an exposed neon letter style
Product: Ultra Side Glow Fiber Optic Cable
Manufacturer: Super Vision International
Lamps: Wet/Dry Indoor/ Outdoor 150W Metal Halide
Color: Custom 8 Color Wheel
* note: colors pending,TBD by designer
Surface Process: Chrome Polish Finish all exposed surfaces
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

51. DIMENSIONAL LETTERS

Material: 1/2" Aluminum
Fabrication Process: Routed Cut
Fastener: Mechanically Flush mounted to Sign Box Face
Edges: Smooth
Illumination: External
Lighting: None - Halo Lit from sign box behind
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

52. SIGN BOX

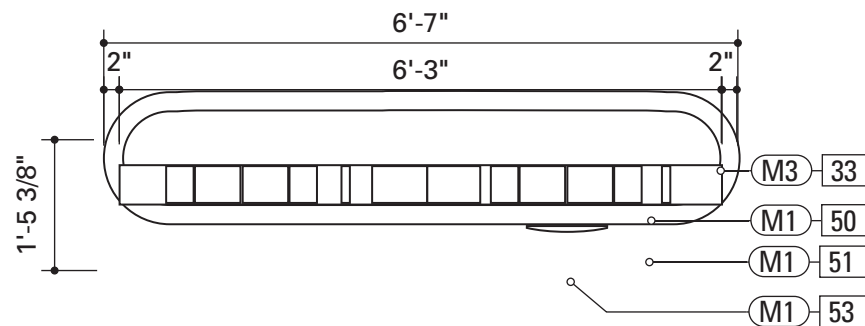
Material: Aluminum
Fabrication Process: Cut/Welded
Fastener: Mechanically Flush mounted to Bracket
Illumination: Internal
Lighting: Internal
Product: Ultra Side Glow Fiber Optic Cable
Manufacturer: Super Vision International
Lamps: Wet/Dry Indoor/ Outdoor 150W Metal Halide
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Sign Face Material: 1/16" Perforated Alum. Face
Sign Face Backer: Black/White Plexi-Glass
Surface Process: Paint Face as specified to match sides

53. DIMENSIONAL SAUCER DETAIL

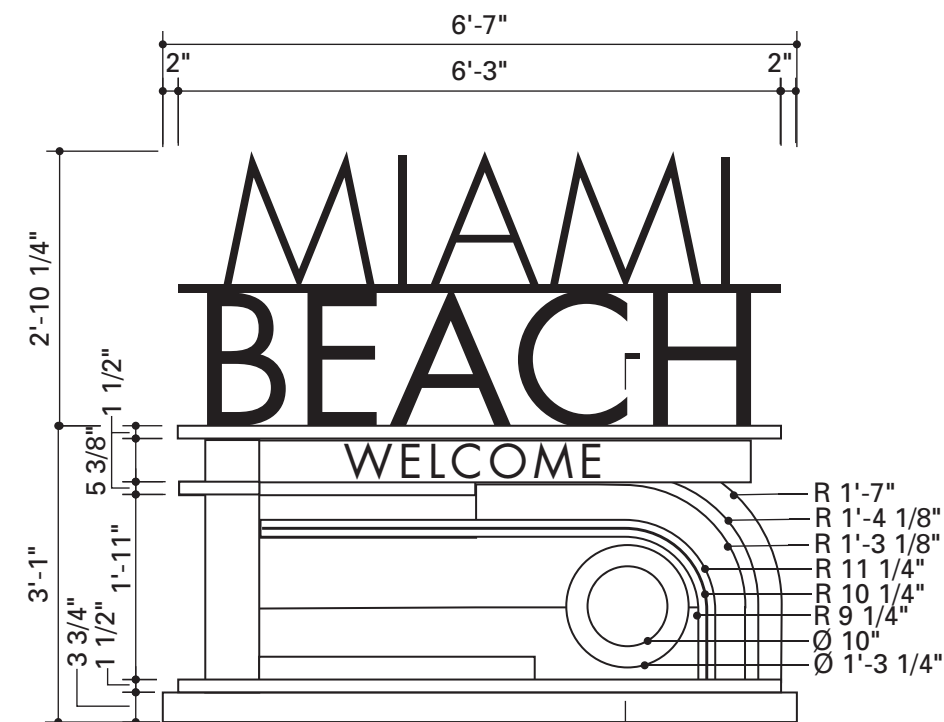
Material: Aluminum
Process: Fabricated, Surface Painted
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Lighting: Internal/ Halo Lit
* note: lighting is to mimic the design look and function of a halo lit neon letter style
Product: Ultra Side Glow Fiber Optic Cable
Manufacturer: Super Vision International
Lamps: Wet/Dry Indoor/ Outdoor 150W Metal Halide
Color: Custom 8 Color Wheel
* note: colors pending,TBD by designer

54. DIMENSIONAL GRAPHIC PANEL

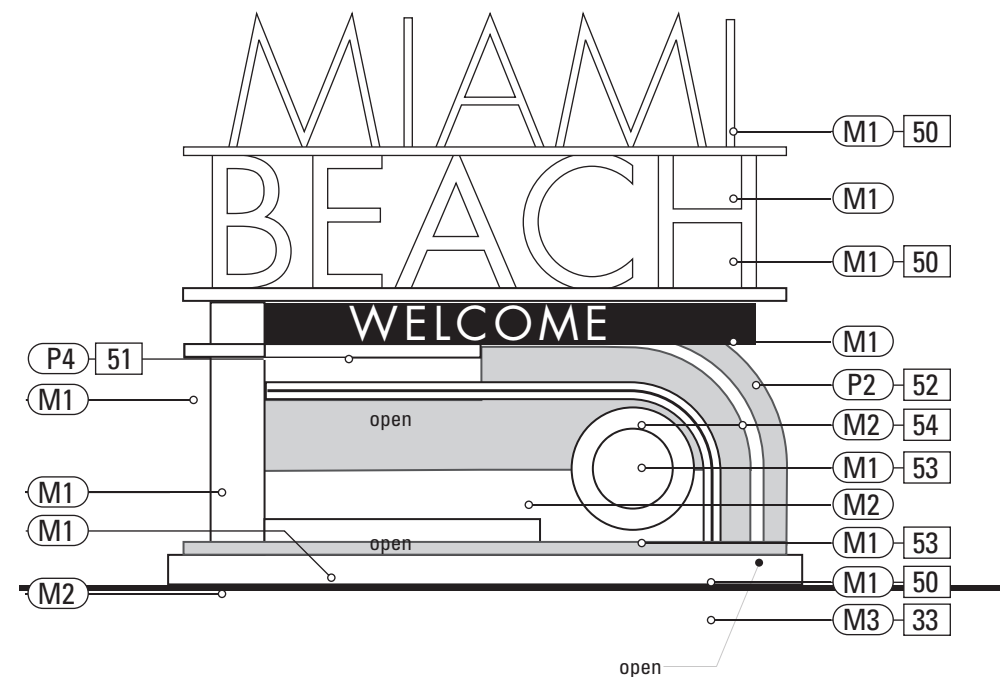
54. DIMENSIONAL GRAPHIC PANEL
Product: Dimensional Pattern
Material: Aluminum
Fabrication Process: Routed/ Fabricated/ Backs Tops Capped
Fastener: Weld to Bracket and Base Plate
Illumination: Externally Illuminated
Surface Process: Chrome Polish Finish all exposed surfaces
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



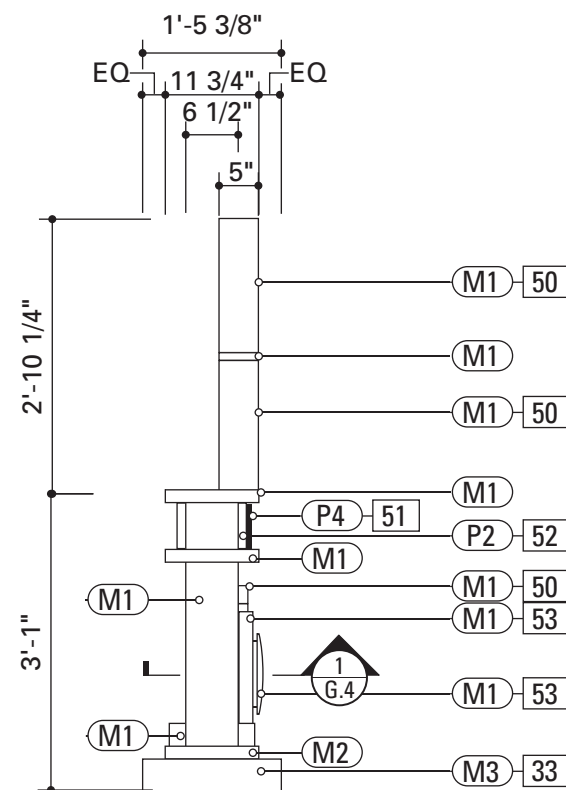
1 Top View: GATE.3
SCALE: 1/2" = 1'-0"



3 Elevation: GATE.3
SCALE: 1/2" = 1'-0"



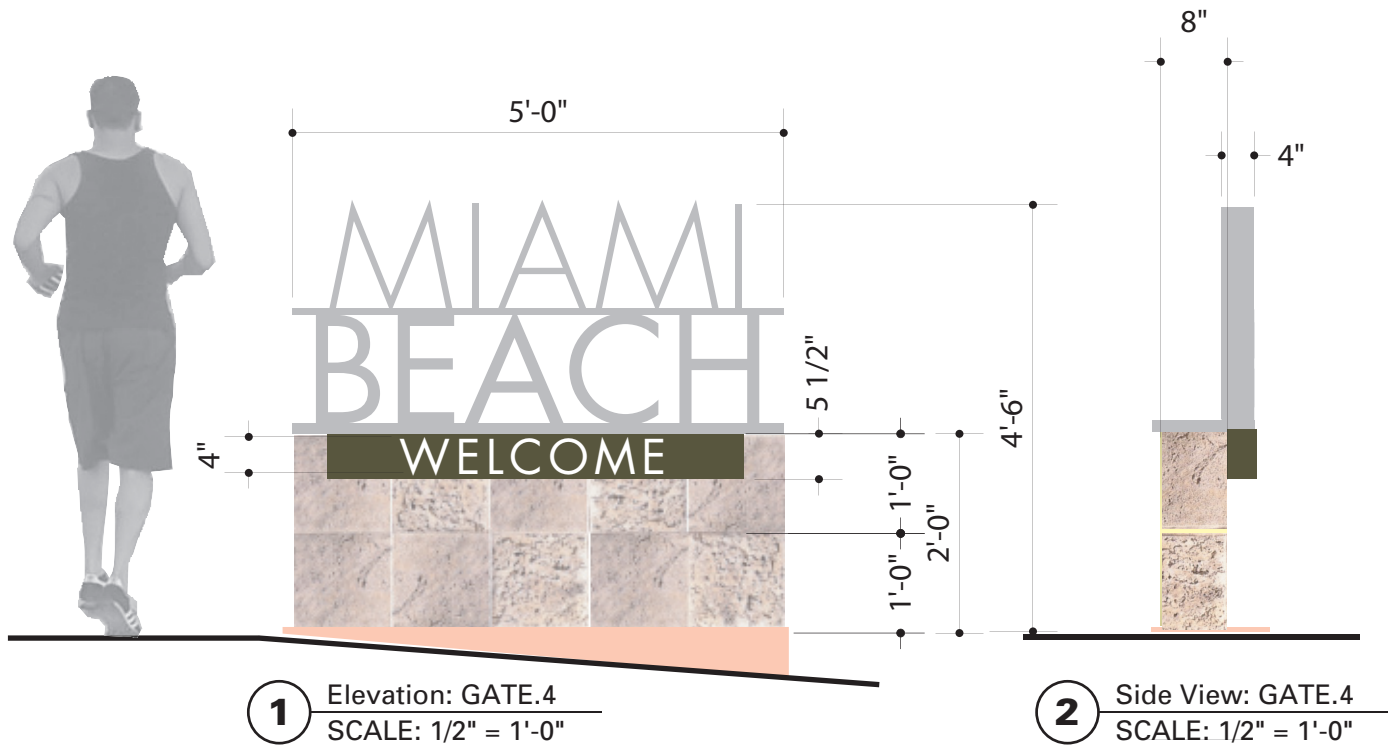
2 Front View: GATE.3 Color Detail
SCALE: 1/2" = 1'-0"



4 Side View: GATE.3
SCALE: 1/2" = 1'-0"



FUNCTION:
Located on the Venetian Causeway, this Gateway sign marks one's arrival into Miami Beach. This landmark icon is ceremonial and not located at the city limits.



FINAL DESIGN AND SPECIFICATIONS TO BE DETERMINED

SPECIFICATIONS:

1. DIMENSIONAL LETTERS

Product: Channel Letters
Material: Aluminum
Fabrication Process: Routered/ Fabricated/ Backs Capped
Fastener: Weld to Bracket
Edges: Smooth
Surface Process: Chrome Polish Finish all exposed surfaces
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

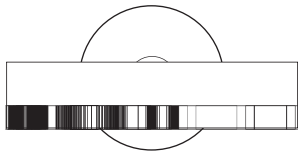
2. BRACKET

Material: 1/4" Thk. Alum.
Fabrication Process: Cut/ Breakformed
Fastener: Weld to Dimensional Letters / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

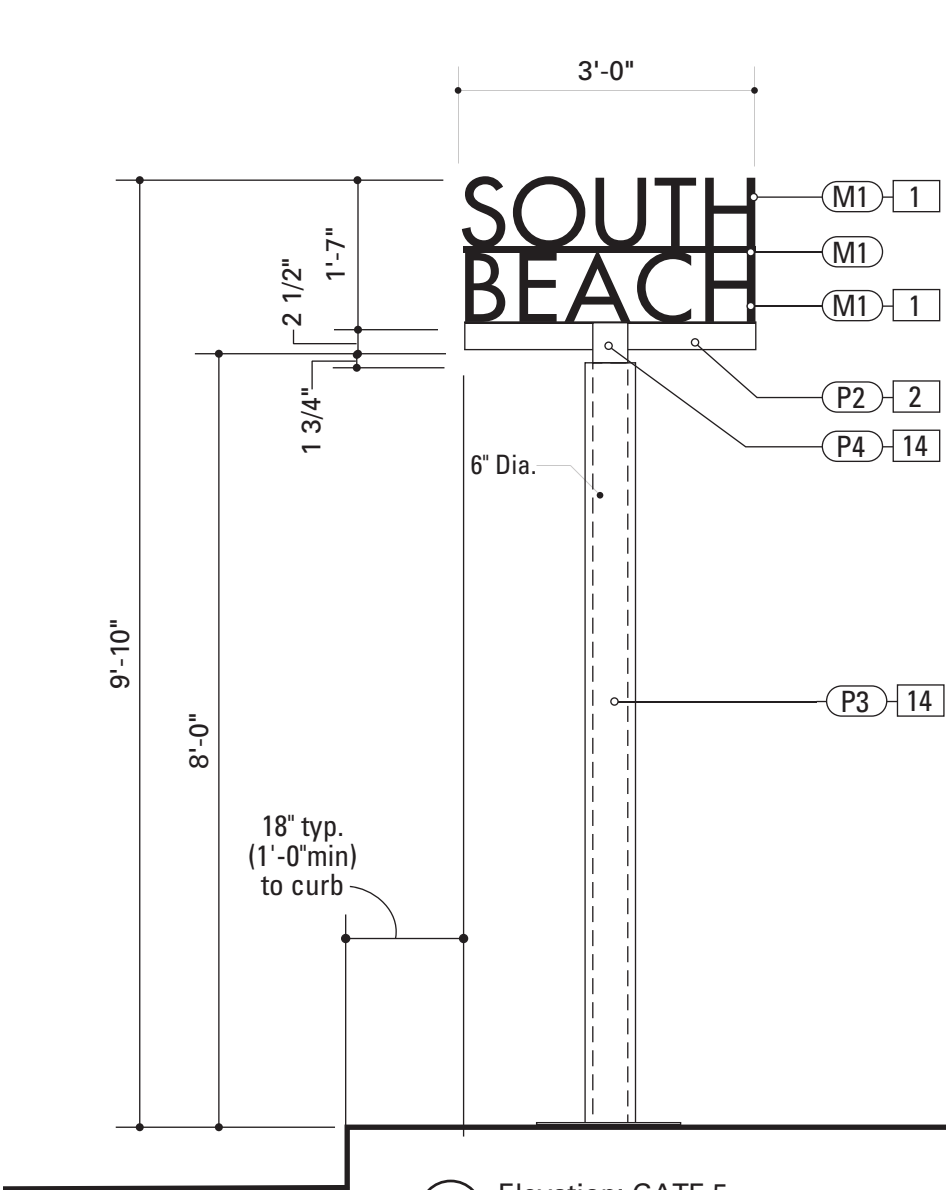
14. POST ASSEMBLY

Outer Post
Material: 1/8" Thk. Alum.
Size: 6" Dia.
Fabrication Process: Extruded / Cut to length/ Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

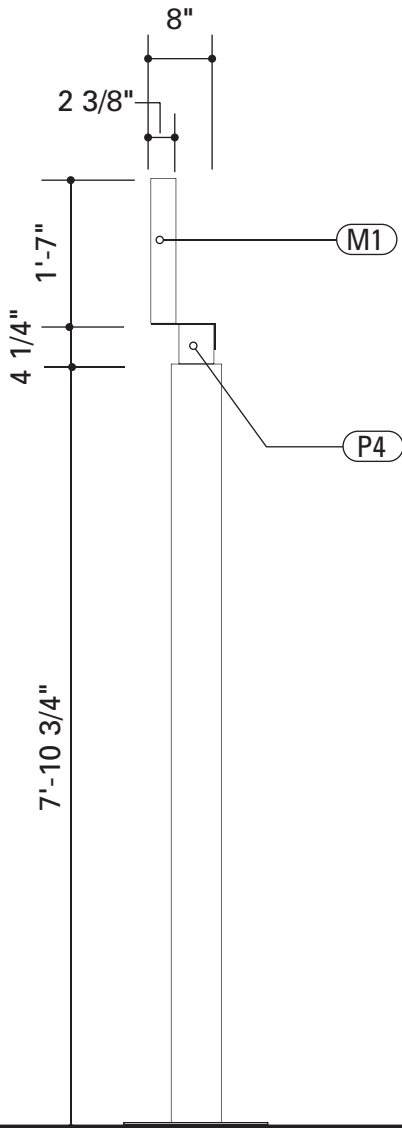
Inner Post
Material: 1/8" Thk. Alum.
Size: 4 1/4" x 4 1/4" Square
Fabrication Process: Extruded / Cut to length/ Weld Flanges
Fastener: Mechanically Fasten to Outer Post/ Weld to Bracket
Surface Process: Paint all exposed surfaces
Under Coat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



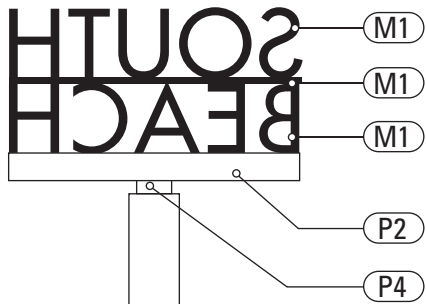
1 Top View: GATE.5
SCALE: 1/2" = 1'-0"



2 Elevation: GATE.5
SCALE: 1/2" = 1'-0"



3 Side View: GATE.5
SCALE: 1/2" = 1'-0"



4 Back View: GATE.5
SCALE: 1/2" = 1'-0"



SPECIFICATIONS:

1. DIMENSIONAL LETTERS

Product: Channel Letters
Material: Aluminum
Fabrication Process: Routered/ Fabricated/ Backs Capped
Fastener: Weld to Bracket
Edges: Smooth
Surface Process: Chrome Polish Finish all exposed surfaces
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

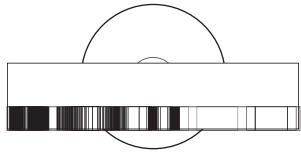
2. BRACKET

Material: 1/4" Thk. Alum.
Fabrication Process: Cut/ Breakformed
Fastener: Weld to Dimensional Letters / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

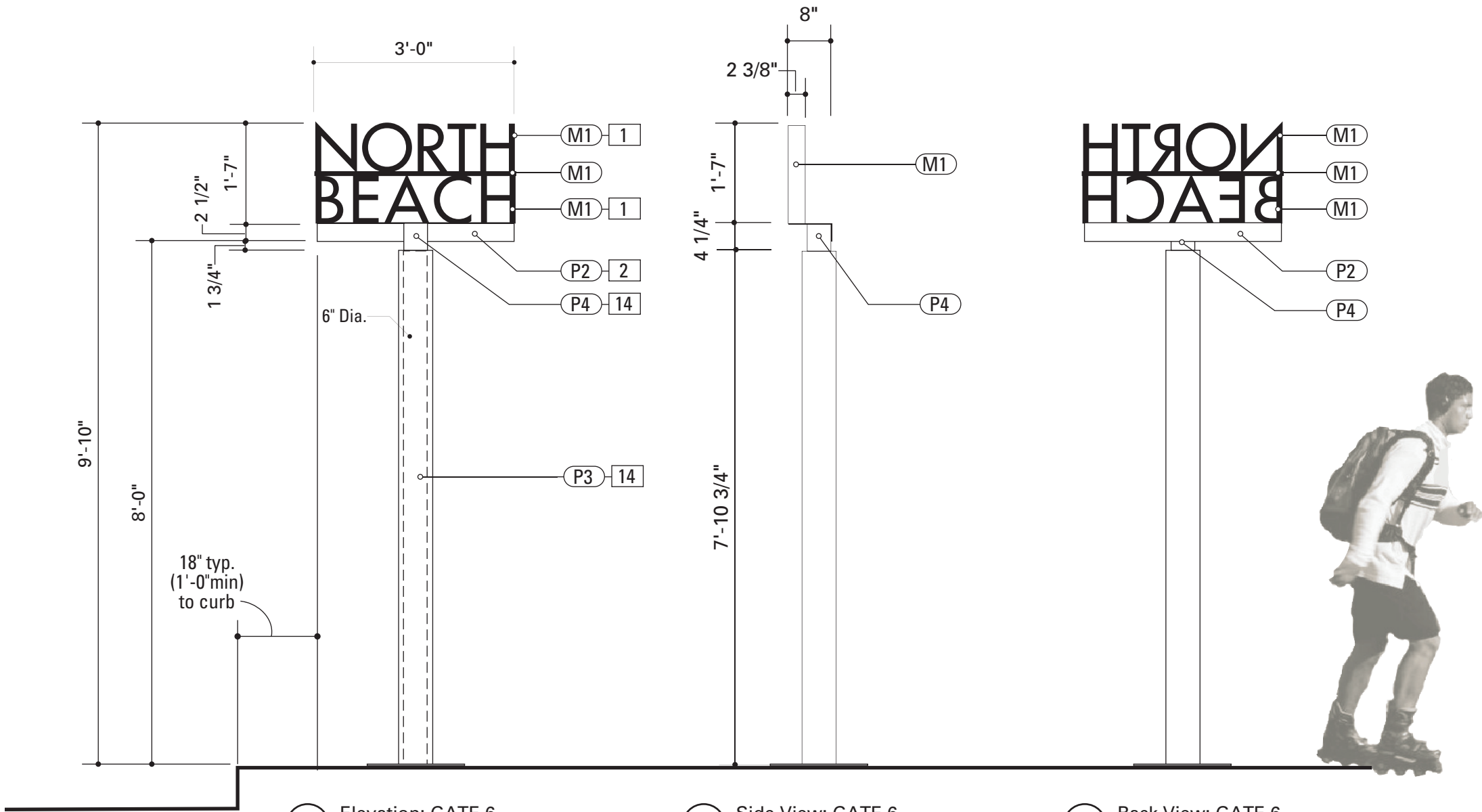
14. POST ASSEMBLY

Outer Post
Material: 1/8" Thk. Alum.
Size: 6" Dia.
Fabrication Process: Extruded / Cut to length/ Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post
Material: 1/8" Thk. Alum.
Size: 4 1/4" x 4 1/4" Square
Fabrication Process: Extruded / Cut to length/ Weld Flanges
Fastener: Mechanically Fasten to Outer Post/ Weld to Bracket
Surface Process: Paint all exposed surfaces
Under Coat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



1 Top View: GATE.6
SCALE: 1/2" = 1'-0"



2 Elevation: GATE.6
SCALE: 1/2" = 1'-0"

3 Side View: GATE.6
SCALE: 1/2" = 1'-0"

4 Back View: GATE.6
SCALE: 1/2" = 1'-0"

SPECIFICATIONS:

3. SIGN PANEL

Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Cut - 90 Degrees
Fastener: Mech. Fasten to Bracket Assembly
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

15. BRACKET ASSEMBLY

Curved Arm Bracket
Material: 3/4" Thk. Alum.
Fabrication Process: Curved to Form Shown
Fastener: Weld to Post Bracket
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Post Bracket
Material: 1/8" Thk. Alum.
Size: 3 1/4" Dia.
Fabrication Process: Extruded / Cut to length
Fastener: Weld to Curved Arm Bracket/ Mech. Fasten to Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

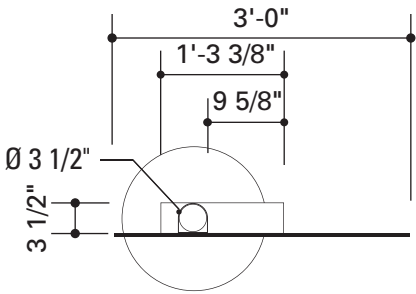
18. POST ASSEMBLY

Outer Post
Material: 1/8" Thk. Alum.
Size: 3 1/4" Dia.
Fabrication Process: Extruded / Cut to length
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

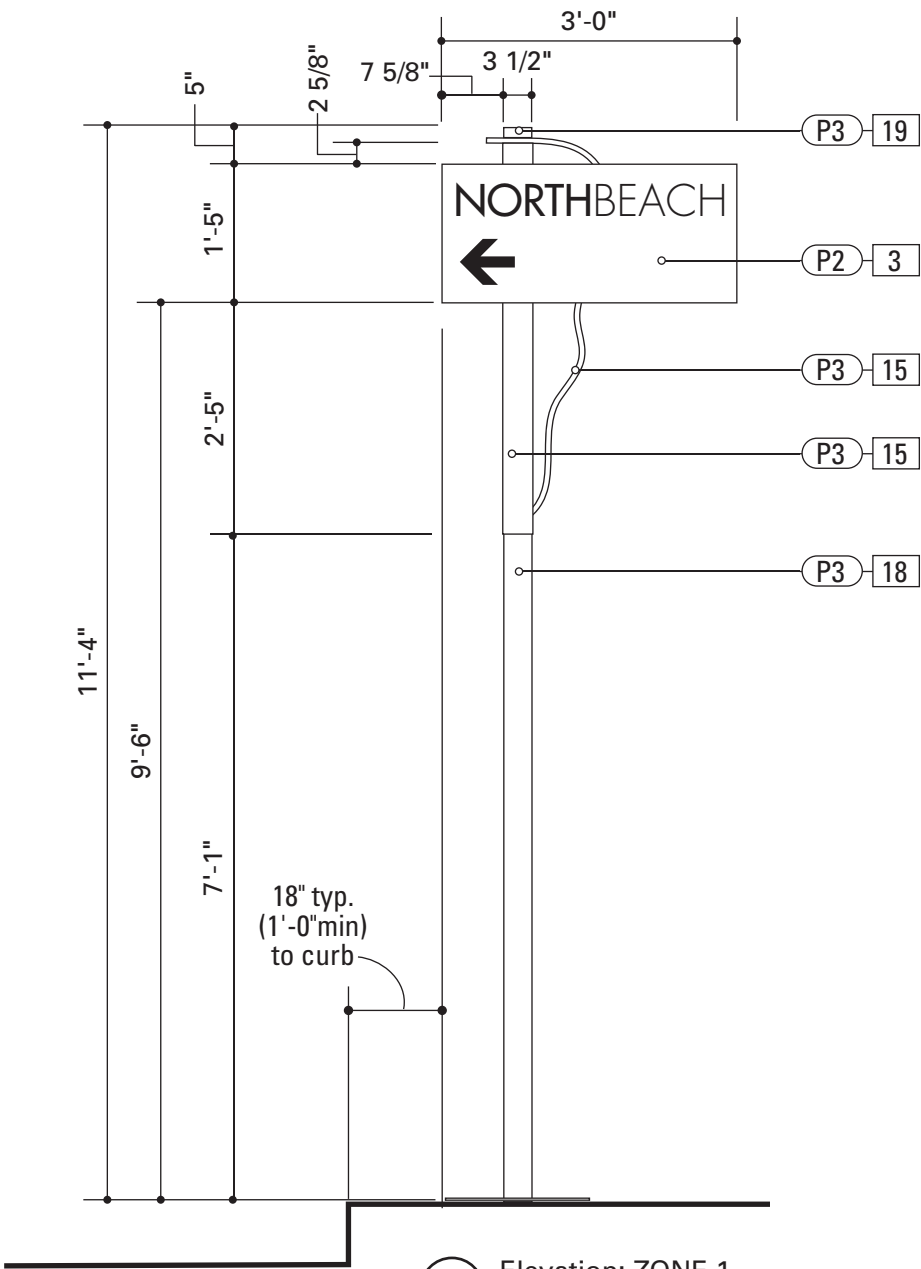
Inner Post
Material: 1/8" Thk. Alum.
Size: 3 1/4" Dia.
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Under Coat: MPC: U Prime
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

19. CAP

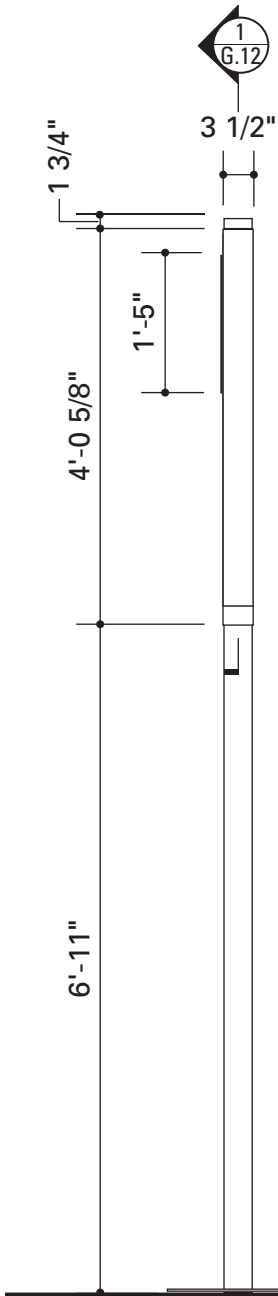
Material: 1/8" Thk. Alum.
Size: 3 1/2" Dia.
Fabrication Process: Extruded / Cut to length/-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



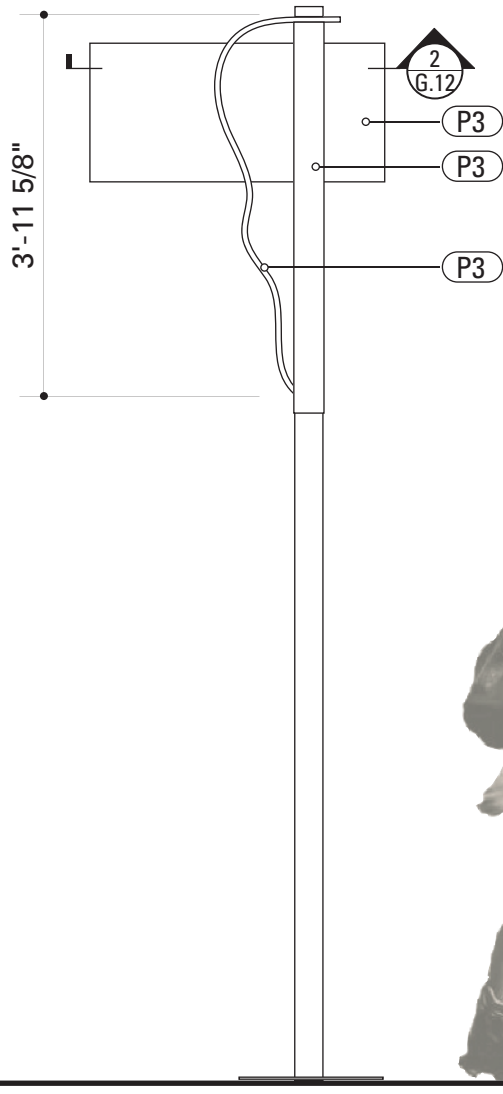
1 Top View: ZONE.1
SCALE: 1/2" = 1'-0"



2 Elevation: ZONE.1
SCALE: 1/2" = 1'-0"



3 Side View: ZONE.1
SCALE: 1/2" = 1'-0"



4 Back View: ZONE.1
SCALE: 1/2" = 1'-0"



GRAPHIC LAYOUT:

- 4" Copy Height
use 6 3/8" line space to baseline
(Use logo artwork only)
- 1 3/4" margin from left edge of panel
- 6 3/4" height straight arrow
use 1 1/2" top and bottom spacing
- 5 5/8" height of left arrow, aligns with left margin,
use 2 1/4" bottom spacing
- 5 5/8" height of right arrow,
aligns with right margin of 1 3/4"
use 2 1/4" bottom spacing



1 Graphic Layout: ZONE.1
SCALE: 1/8" = 1"



2 Graphic Layout: ZONE.1
SCALE: 1/8" = 1"



3 Graphic Layout: ZONE.1
SCALE: 1/8" = 1"

SPECIFICATIONS:

3. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Cut - 90 Degrees
Fastener: Mech. Fasten to Bracket Assembly
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

15. BRACKET ASSEMBLY

Curved Arm Bracket

Material: 3/4" Thk. Alum.
Fabrication Process: Curved to Form Shown
Fastener: Weld to Post Bracket
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Post Bracket

Material: 1/8" Thk. Alum.
Size: 3 1/4" Dia.
Fabrication Process: Extruded / Cut to length
Fastener: Weld to Curved Arm Bracket/ Mech. Fasten to Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

18. POST ASSEMBLY

Outer Post

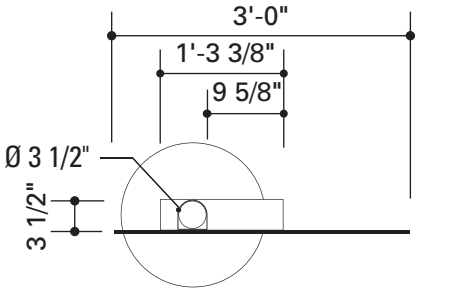
Material: 1/8" Thk. Alum.
Size: 3 1/2" Dia.
Fabrication Process: Extruded / Cut to length
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

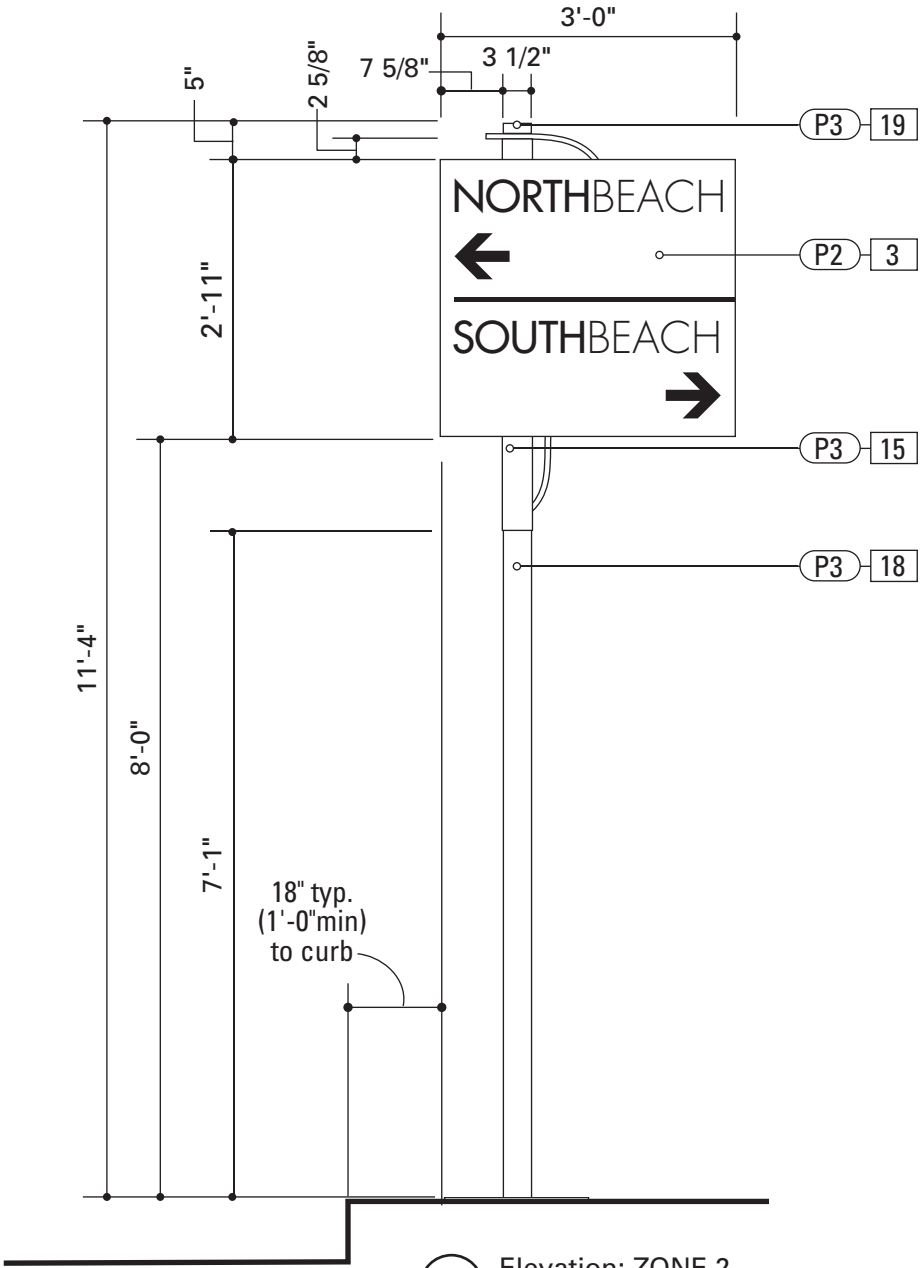
Material: 1/8" Thk. Alum.
Size: 3 1/4" Dia.
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Under Coat: MPC: U Prime
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

19. CAP

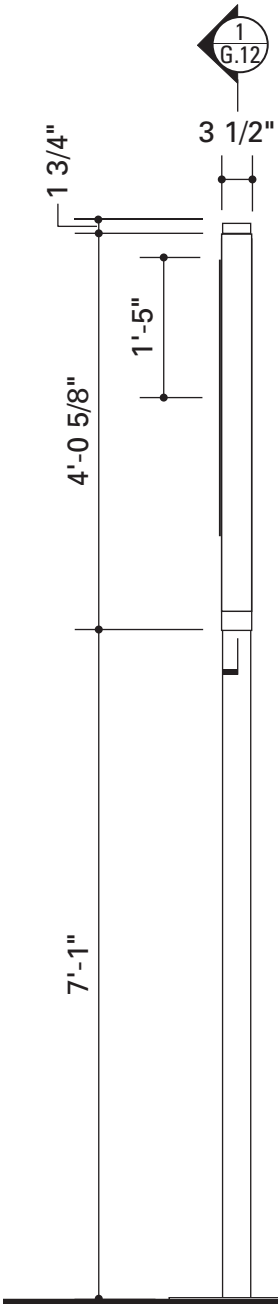
Material: 1/8" Thk. Alum.
Size: 3 1/2" Dia.
Fabrication Process: Extruded / Cut to length/-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



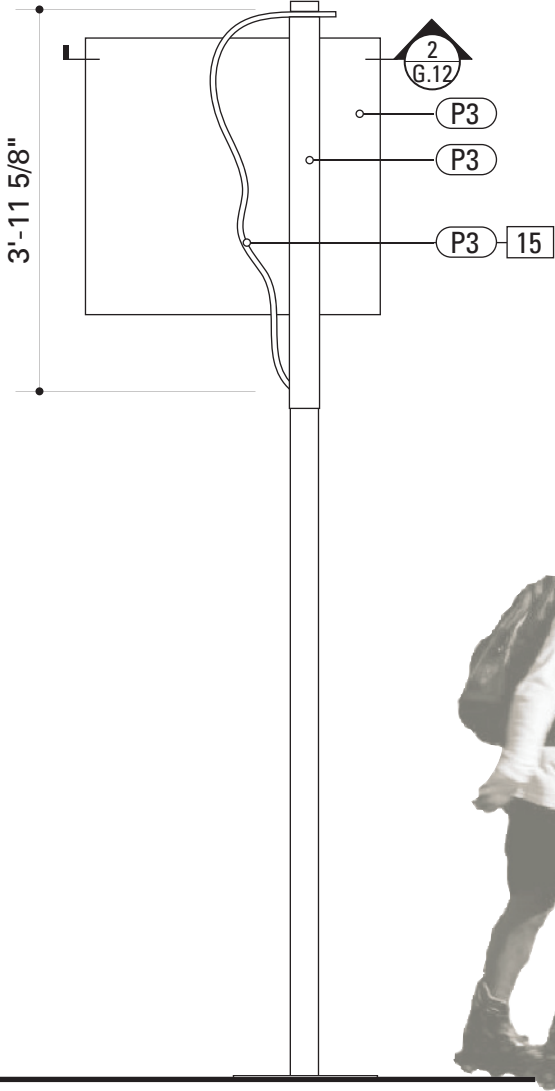
1 Top View: ZONE.2
SCALE: 1/2" = 1'-0"



2 Elevation: ZONE.2
SCALE: 1/2" = 1'-0"



3 Side View: ZONE.2
SCALE: 1/2" = 1'-0"

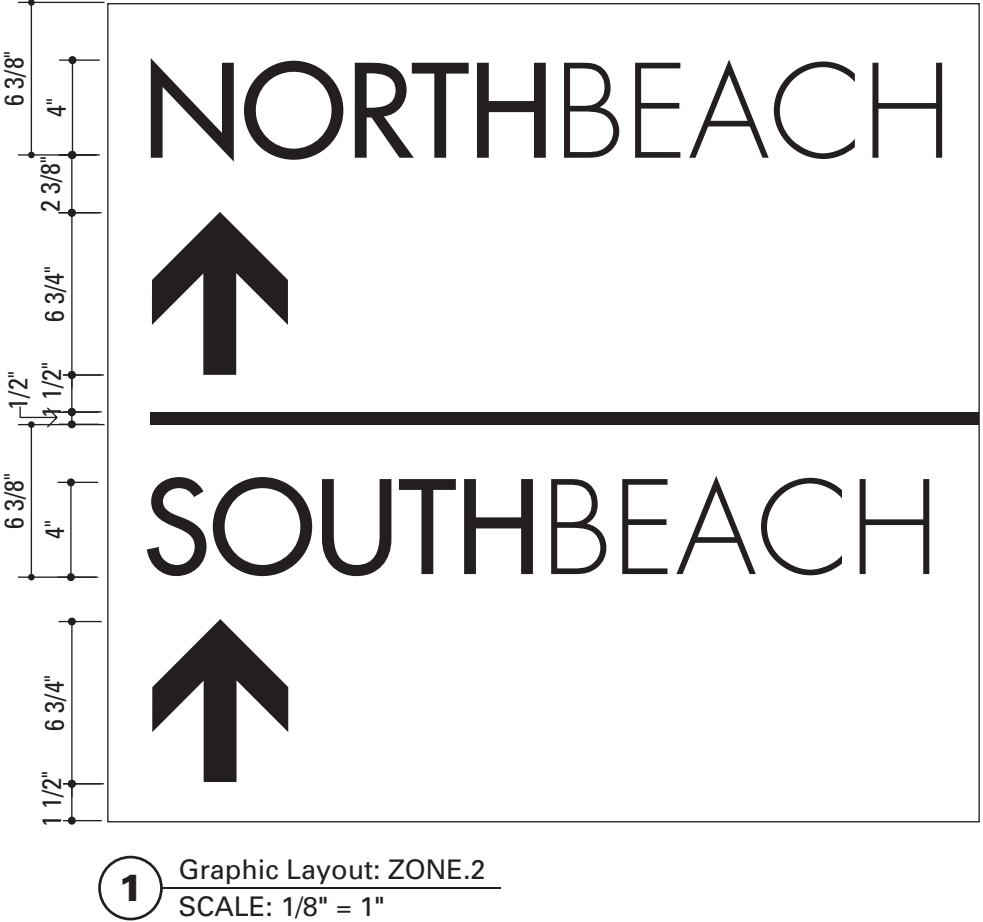
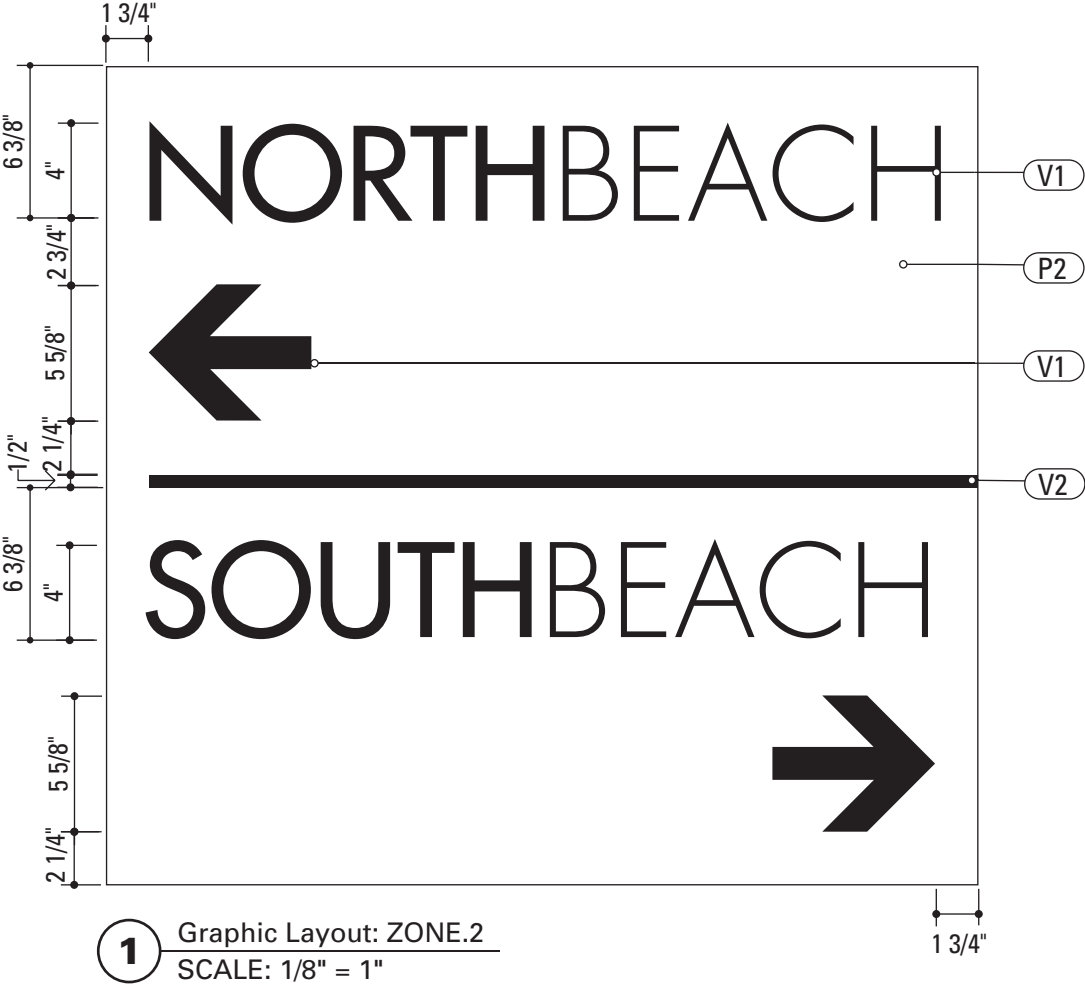


4 Back View: ZONE.2
SCALE: 1/2" = 1'-0"



GRAPHIC LAYOUT:

- 4" Copy Height
use 6 3/8" line space to baseline
(Use logo artwork only)
- 1 3/4" margin from left edge of panel
- 1/2" thick rule line
with every new directional arrow
- 6 3/4" height straight arrow
use 1 1/2" top and bottom spacing
- 5 5/8" height of left arrow,
aligns with left margin,
use 2 1/4" bottom spacing
- 5 5/8" height of right arrow,
aligns with right margin of 1 3/4"
use 2 1/4" bottom spacing



SPECIFICATIONS:

3. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Cut - 90 Degrees
Fastener: Mech. Fasten to Bracket Assembly
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

15. BRACKET ASSEMBLY

Curved Arm Bracket

Material: 3/4" Thk. Alum.
Fabrication Process: Curved to Form Shown
Fastener: Weld to Post Bracket
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Post Bracket

Material: 1/8" Thk. Alum.
Size: 3 1/4" Dia.
Fabrication Process: Extruded / Cut to length
Fastener: Weld to Curved Arm Bracket/ Mech. Fasten to Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

18. POST ASSEMBLY

Outer Post

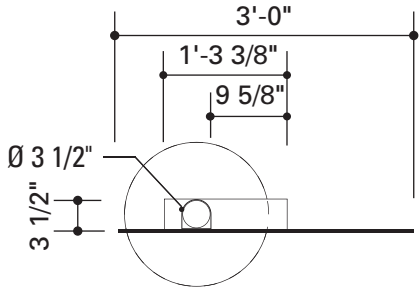
Material: 1/8" Thk. Alum.
Size: 3 1/2" Dia.
Fabrication Process: Extruded / Cut to length
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

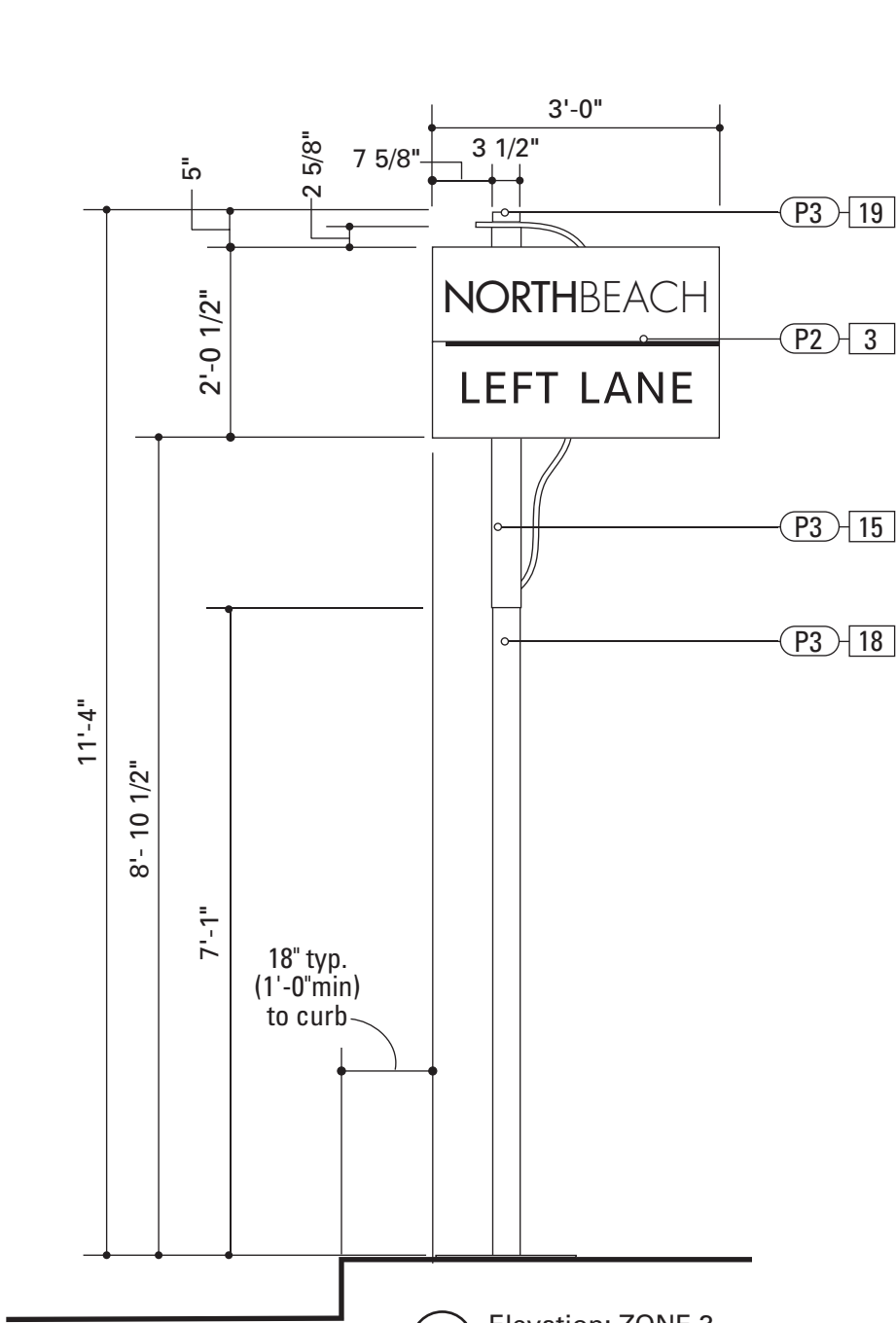
Material: 1/8" Thk. Alum.
Size: 3 1/4" Dia.
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Under Coat: MPC: U Prime
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

19. CAP

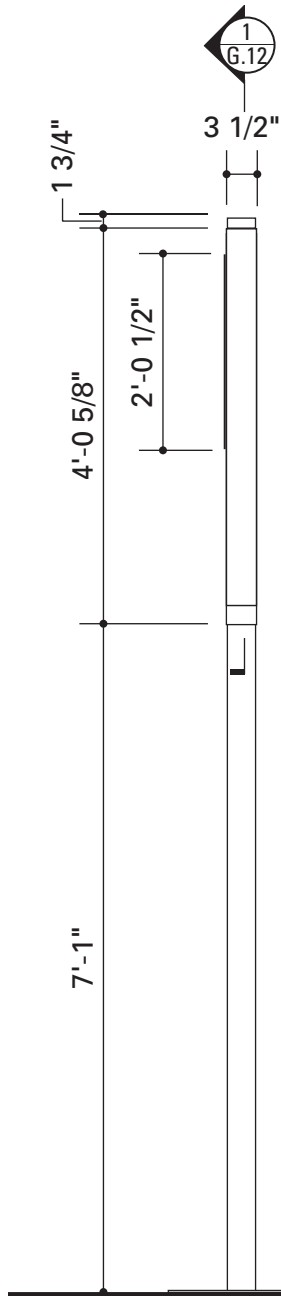
Material: 1/8" Thk. Alum.
Size: 3 1/2" Dia.
Fabrication Process: Extruded / Cut to length/-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



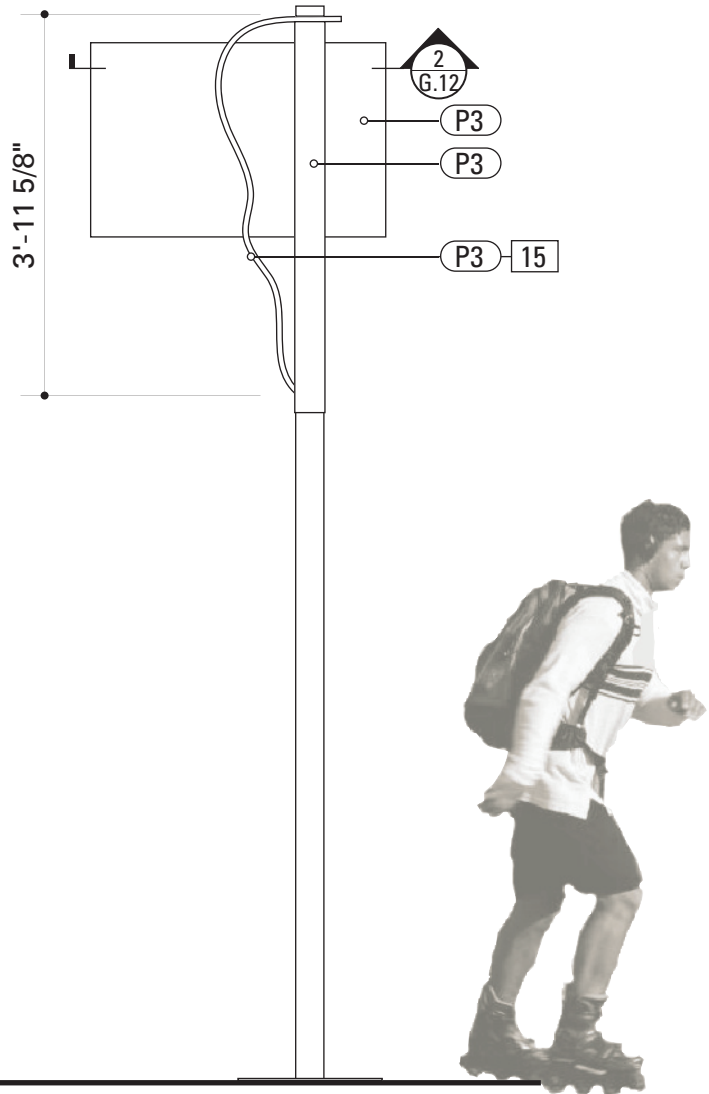
1 Top View: ZONE.3
SCALE: 1/2" = 1'-0"



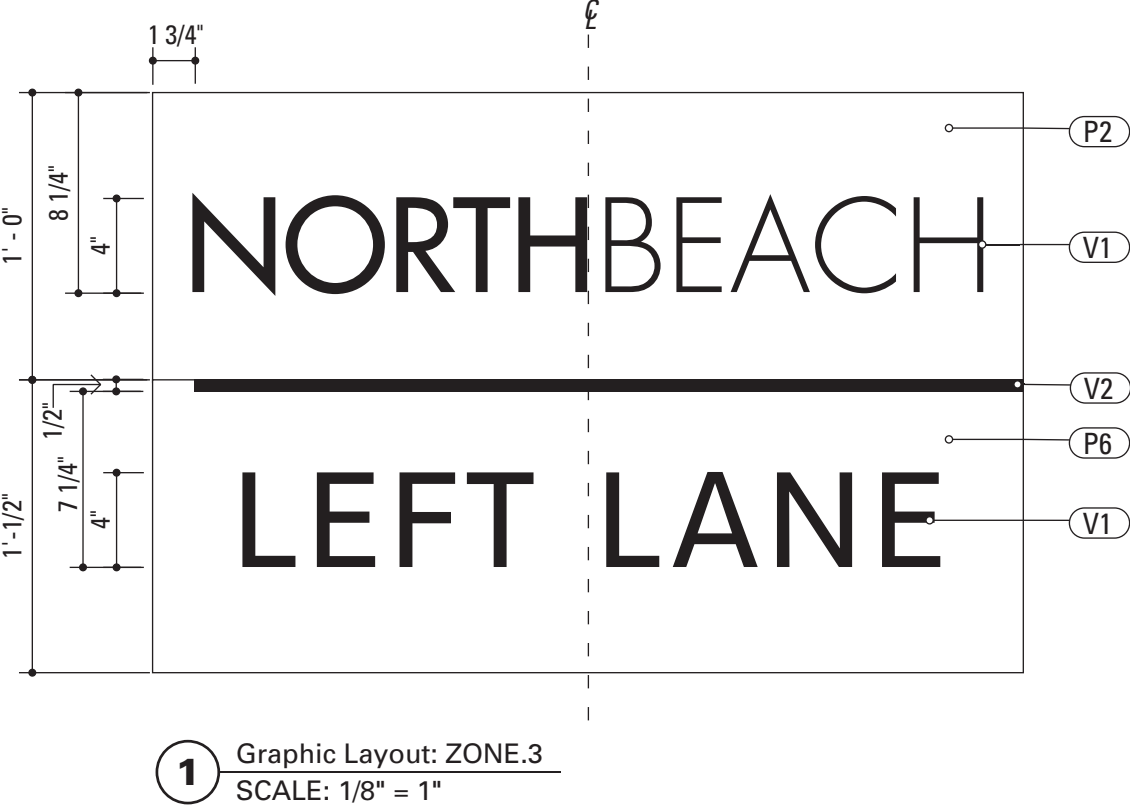
2 Elevation: ZONE.3
SCALE: 1/2" = 1'-0"



3 Side View: ZONE.3
SCALE: 1/2" = 1'-0"



4 Back View: ZONE.3
SCALE: 1/2" = 1'-0"



GRAPHIC LAYOUT:

- 4" Copy Height
use 8 1/4" line space to first baseline
(Use logo artwork only)
- use 7 1/4" line space to 2nd baseline
Maximum # characters for line: 9 (including spaces)
- 1/2" thick rule line 12" from top of panel
- 1 3/4" margin from left edge of panel

SPECIFICATIONS:

4. SIGN PANEL

Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Router Cut /Breakformed (1) piece
Fastener: Mech. Fasten to Bracket Assembly/ Post Cap
Surface Process:Paint all exposed surfaces
Front / Top: Color P2 Blue
Edges: Color P2
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Back / Underside: Color P3 Silver
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

20. POST ASSEMBLY

Outer Post
Material: Aluminum
Size: Custom
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

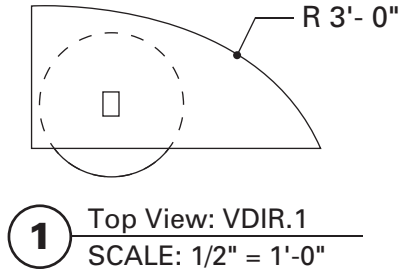
Inner Post
Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

21. CAP
Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Angle Cut /-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

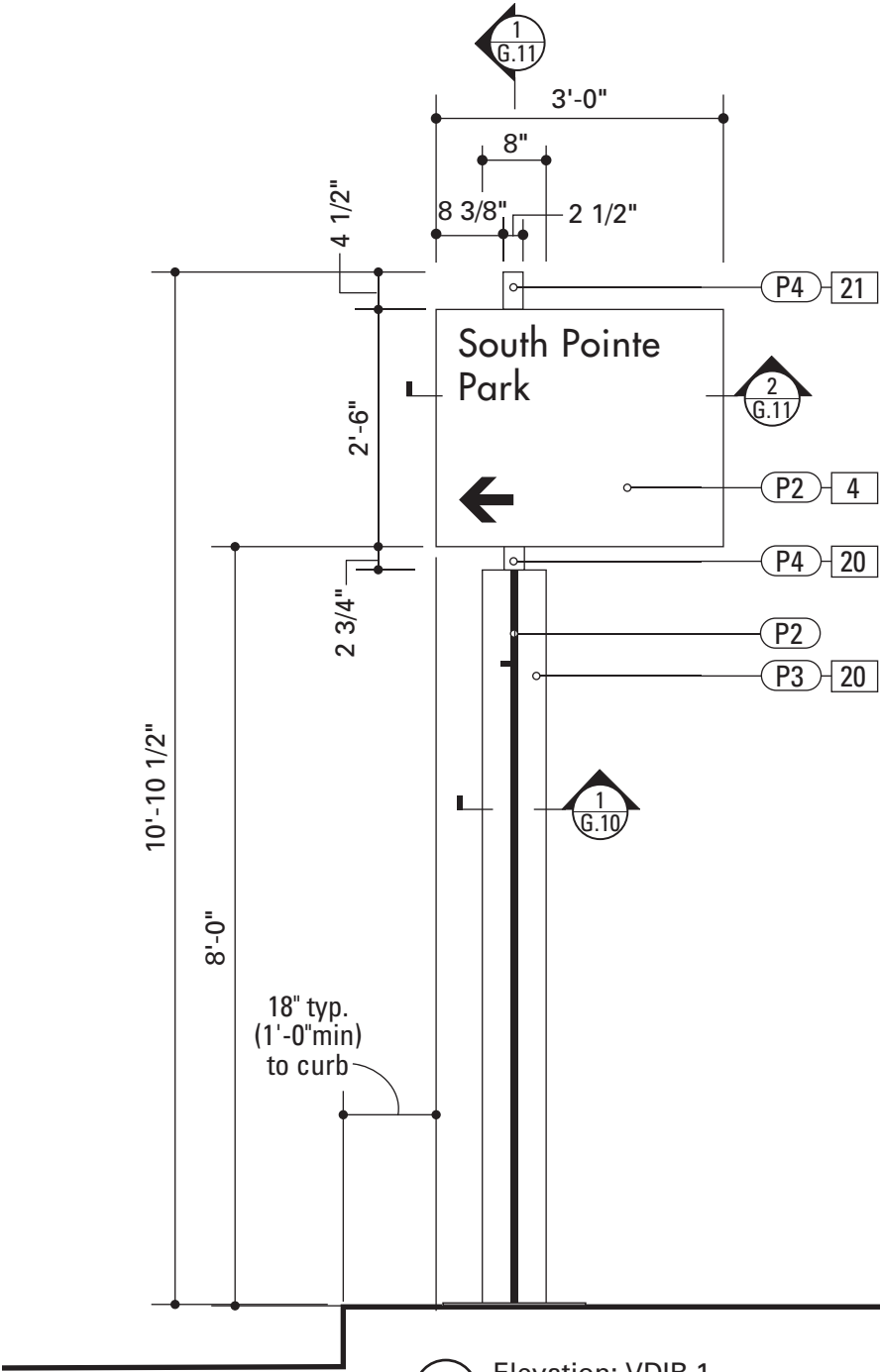
22. BRACKET ASSEMBLY
Inner Bracket
Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket
Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

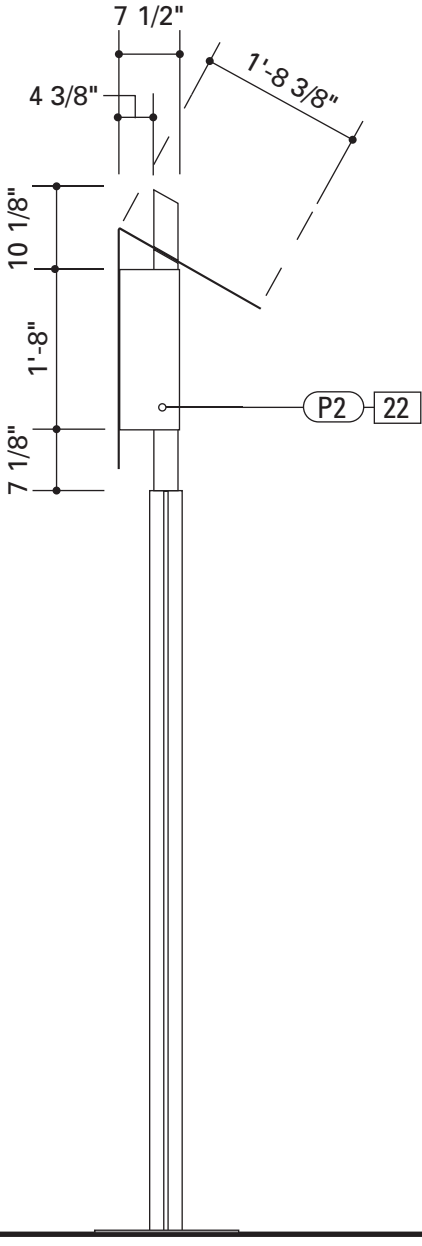
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



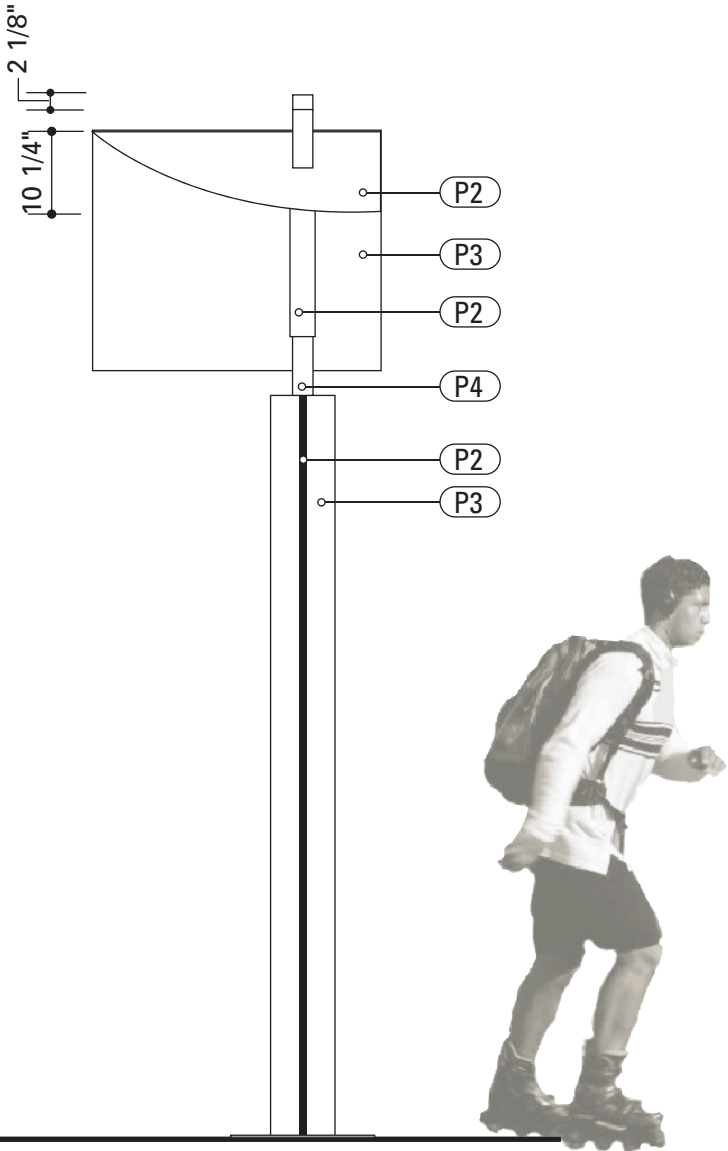
1 Top View: VDIR.1
SCALE: 1/2" = 1'-0"



2 Elevation: VDIR.1
SCALE: 1/2" = 1'-0"



3 Side View: VDIR.1
SCALE: 1/2" = 1'-0"



4 Back View: VDIR.1
SCALE: 1/2" = 1'-0"

GRAPHIC LAYOUT:

- 3 1/2" Copy Height
use 6" line space to first baseline
Use 5 1/2" line space to
2nd and 3rd baseline of each listing

Maximum # of characters per line:
approx. 13 (including spaces)

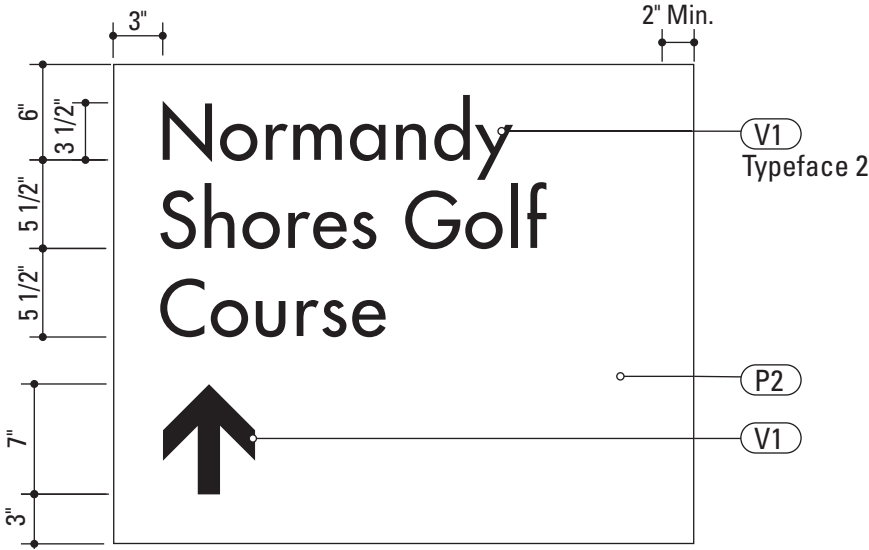
- 3" margin from left edge of panel
and 2" minimum margin from right edge of panel

- 7" height straight arrow use 3" bottom spacing,
aligns with left margin

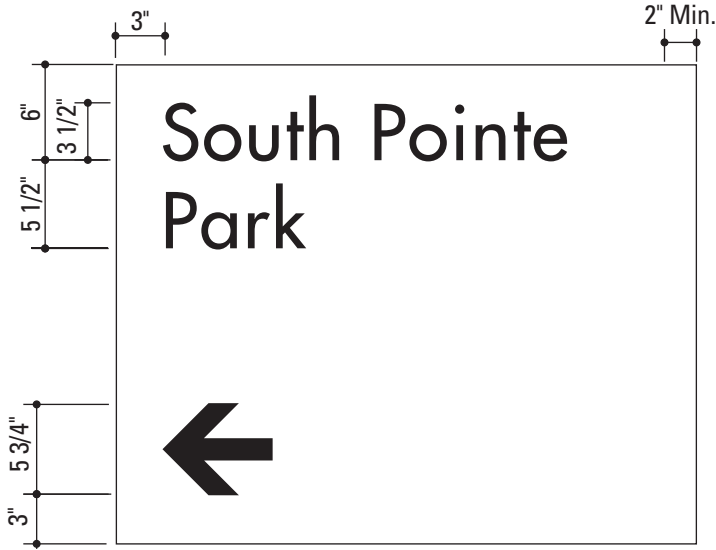
5 3/4" height of left arrow, aligns with left margin,
Use 3" bottom spacing

5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3" bottom spacing

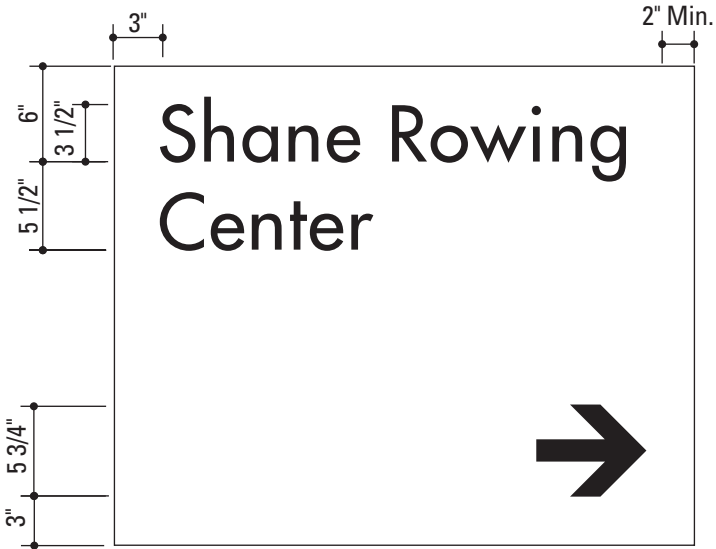
Note: The terminology and messages shown on this page are for refer-
ence and graphic layout only and do not represent any specific sign
location. Reference the sign message schedule for exact terminology.



1 Graphic Layout: VDIR.1
SCALE: 1" = 1'-0"



2 Graphic Layout: VDIR.1
SCALE: 1" = 1'-0"



3 Graphic Layout: VDIR.1
SCALE: 1" = 1'-0"

SPECIFICATIONS:

4. SIGN PANEL

Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Router Cut /Breakformed (1) piece
Fastener: Mech. Fasten to Bracket Assembly/ Post Cap
Surface Process:Paint all exposed surfaces
Front / Top: Color P2 Blue
Edges: Color P2
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Back / Underside: Color P3 Silver
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

20. POST ASSEMBLY

Outer Post
Material: Aluminum
Size: Custom
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

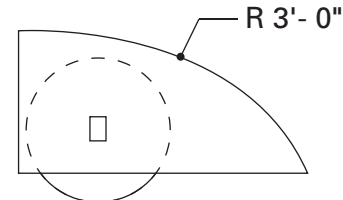
Inner Post
Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

21. CAP
Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Angle Cut /-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

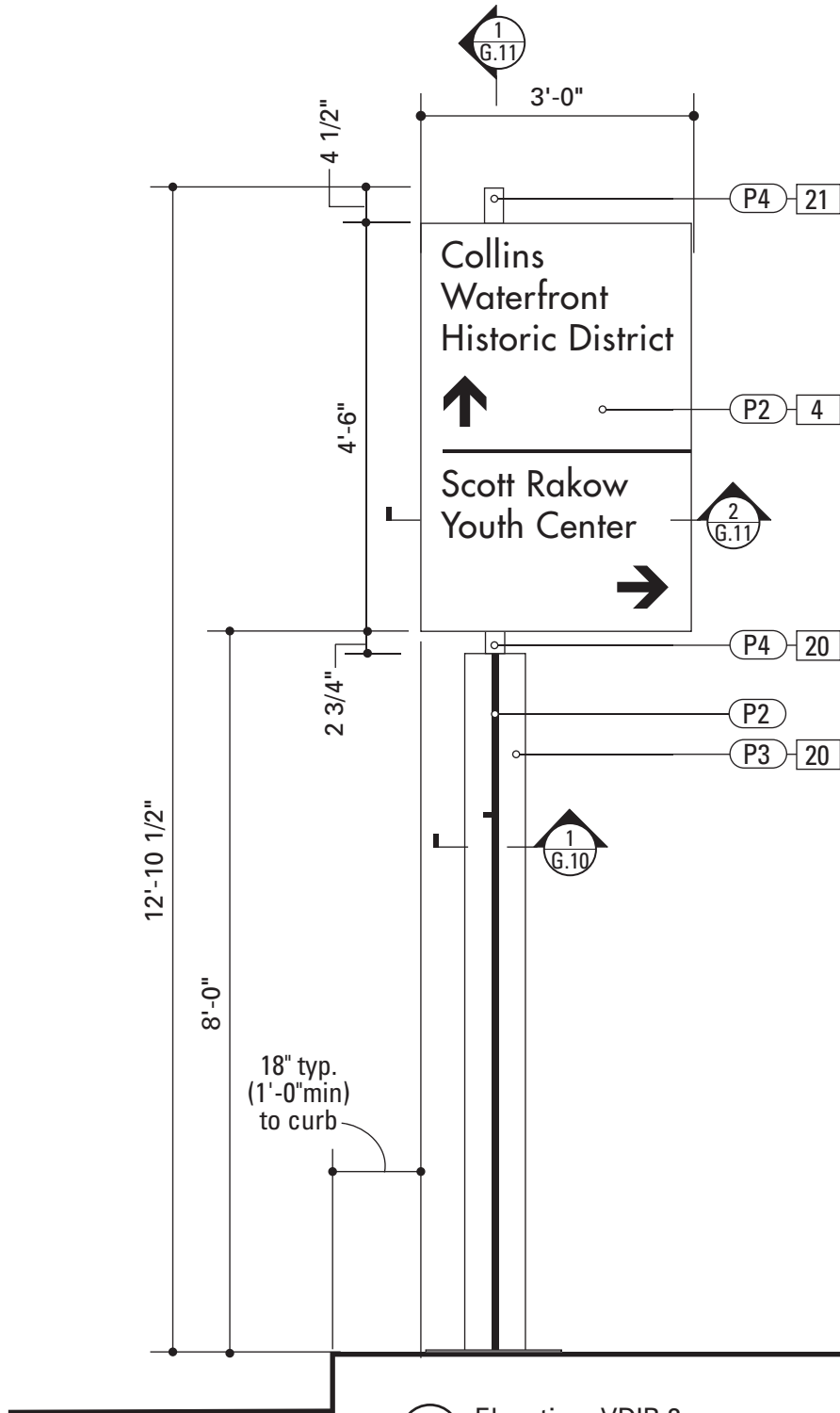
22. BRACKET ASSEMBLY
Inner Bracket
Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket
Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

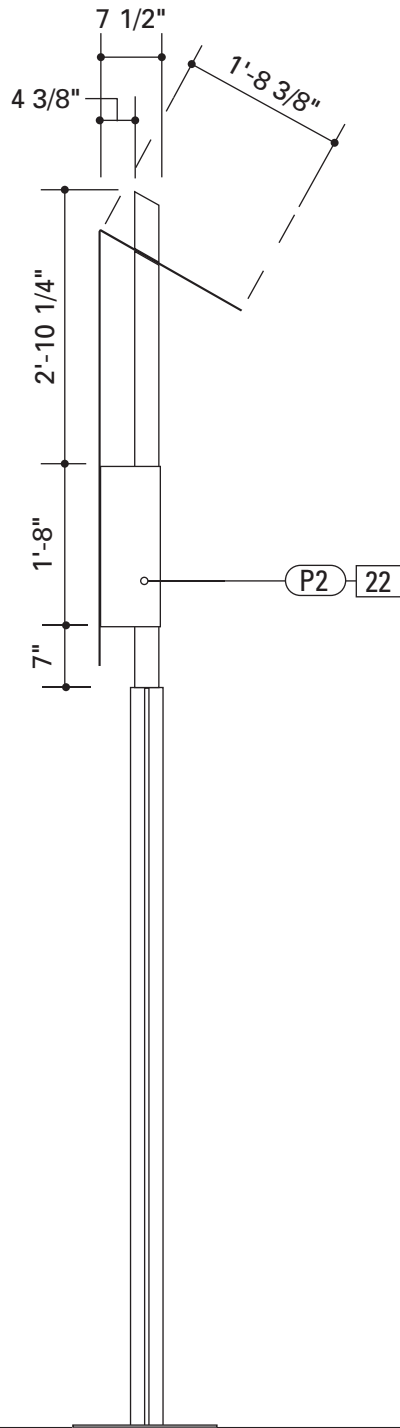
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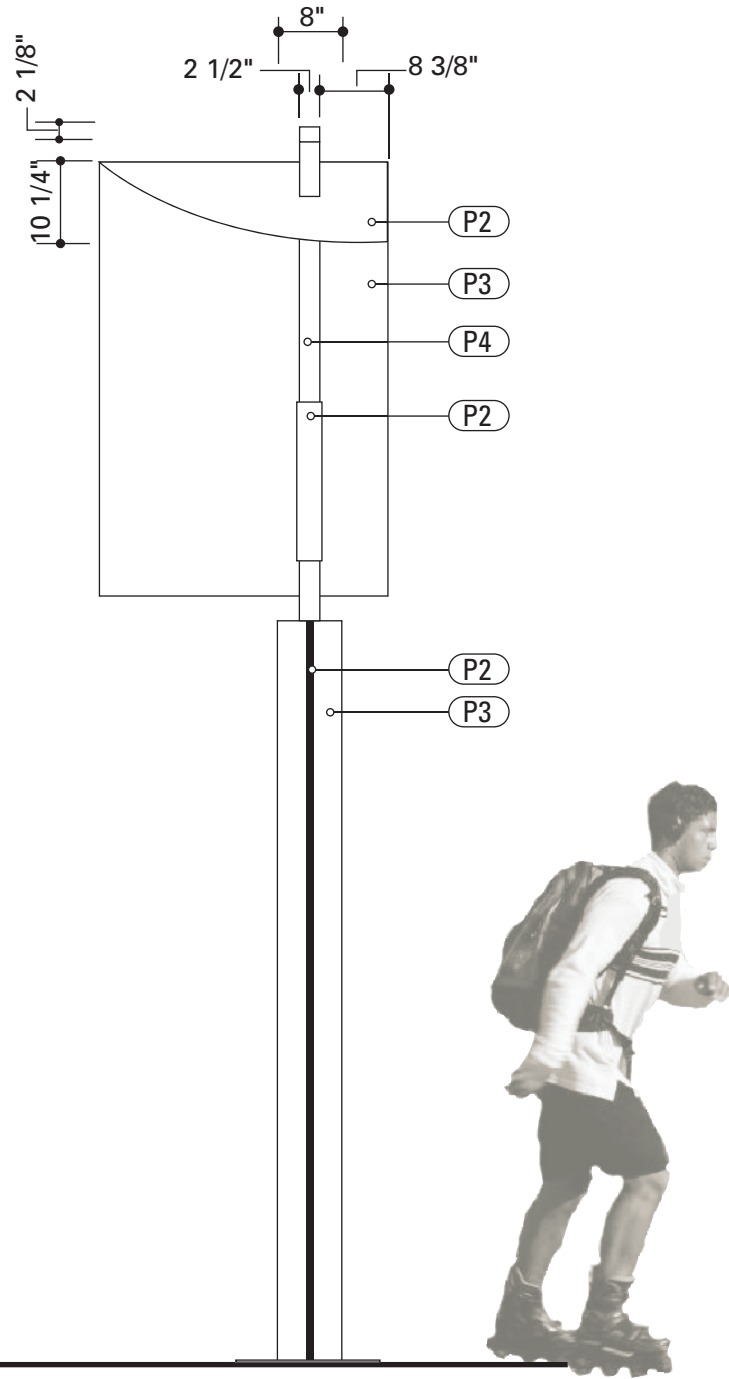
1 Top View: VDIR.2
SCALE: 1/2" = 1'-0"



2 Elevation: VDIR.2
SCALE: 1/2" = 1'-0"



3 Side View: VDIR.2
SCALE: 1/2" = 1'-0"

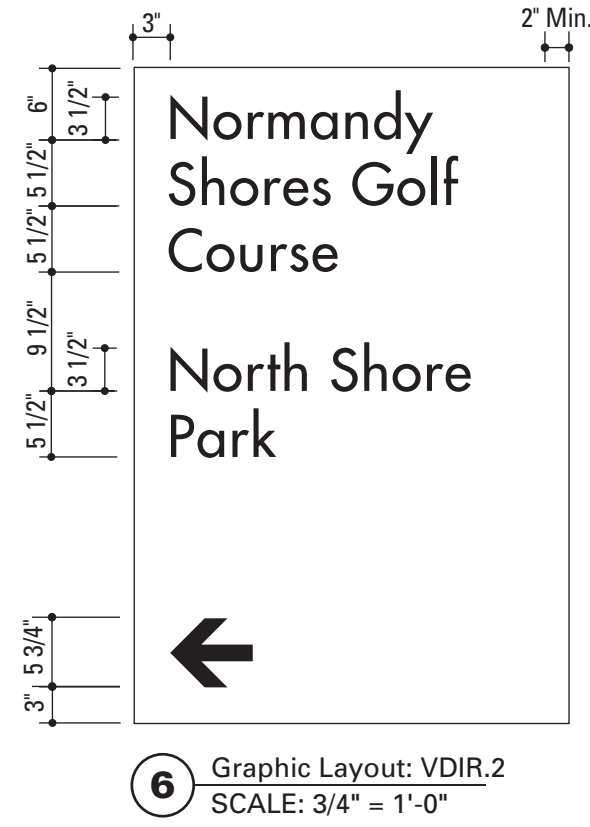
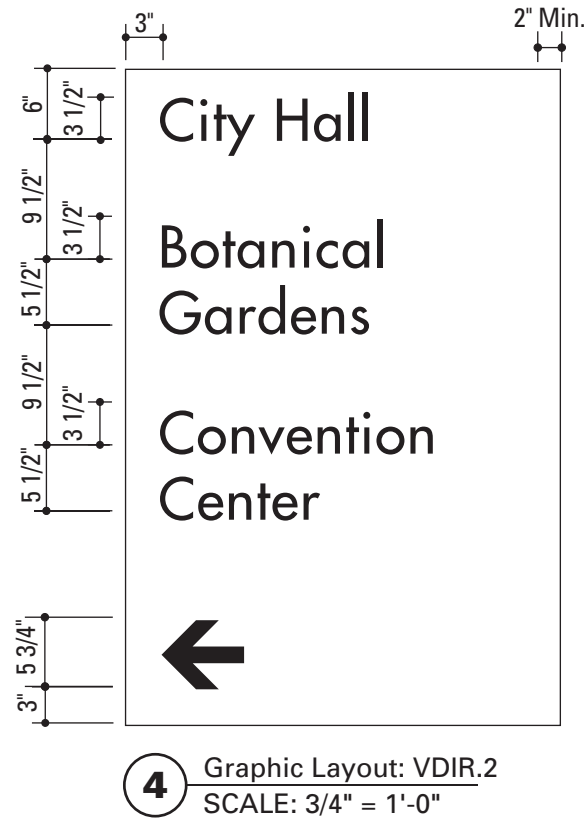
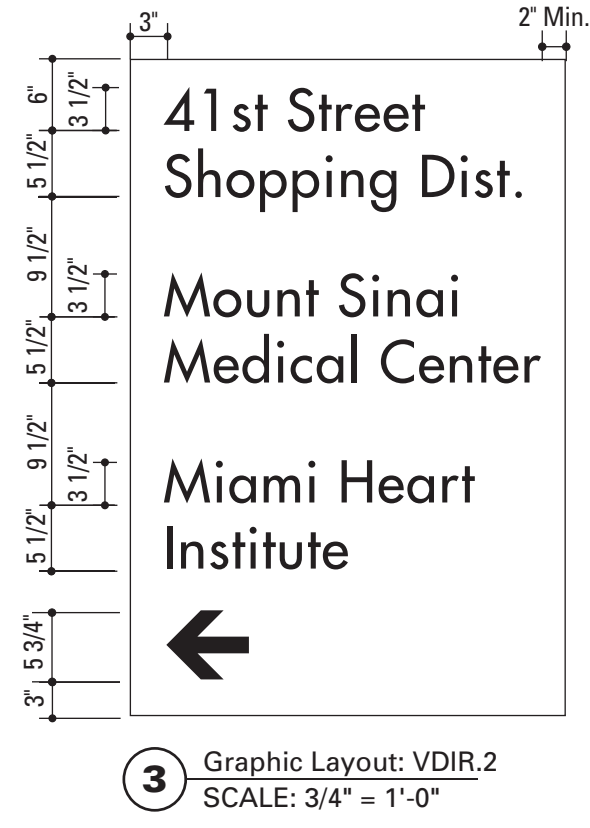
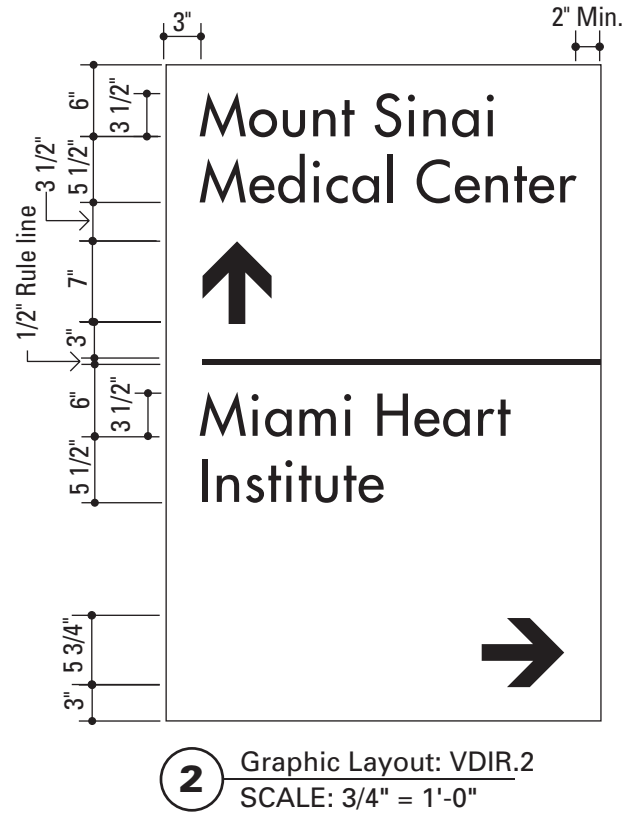
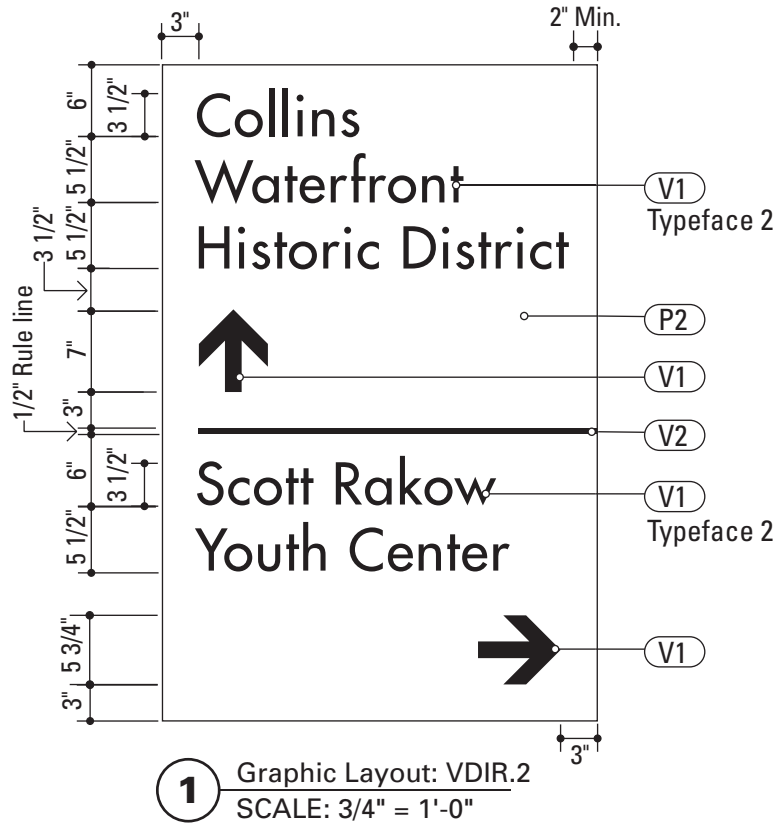


4 Back View: VDIR.2
SCALE: 1/2" = 1'-0"

GRAPHIC LAYOUT:

- 3 1/2" Copy Height
use 6" line space to first baseline
Use 5 1/2" line space to
2nd and 3rd baseline of each listing
- Use 9 1/2" line spacing to
first baseline of additional listings
- Maximum # of characters per line:
approx. 13 (including spaces)
- 3" margin from left edge of panel
and 2" minimum margin from right edge of panel
- 7" height straight arrow use 3" bottom spacing,
aligns with left margin
- 5 3/4" height of left arrow, aligns with left margin,
Use 3" bottom spacing
- 5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3" bottom spacing
- 1/2" thick rule line with every new directional arrow

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



SPECIFICATIONS:

4. SIGN PANEL

Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Router Cut / Breakformed (1) piece
Fastener: Mech. Fasten to Bracket Assembly/ Post Cap
Surface Process: Paint all exposed surfaces
Front / Top: Color P2 Blue
Edges: Color P2
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Back / Underside: Color P3 Silver
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

20. POST ASSEMBLY

Outer Post
Material: Aluminum
Size: Custom
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post
Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

21. CAP

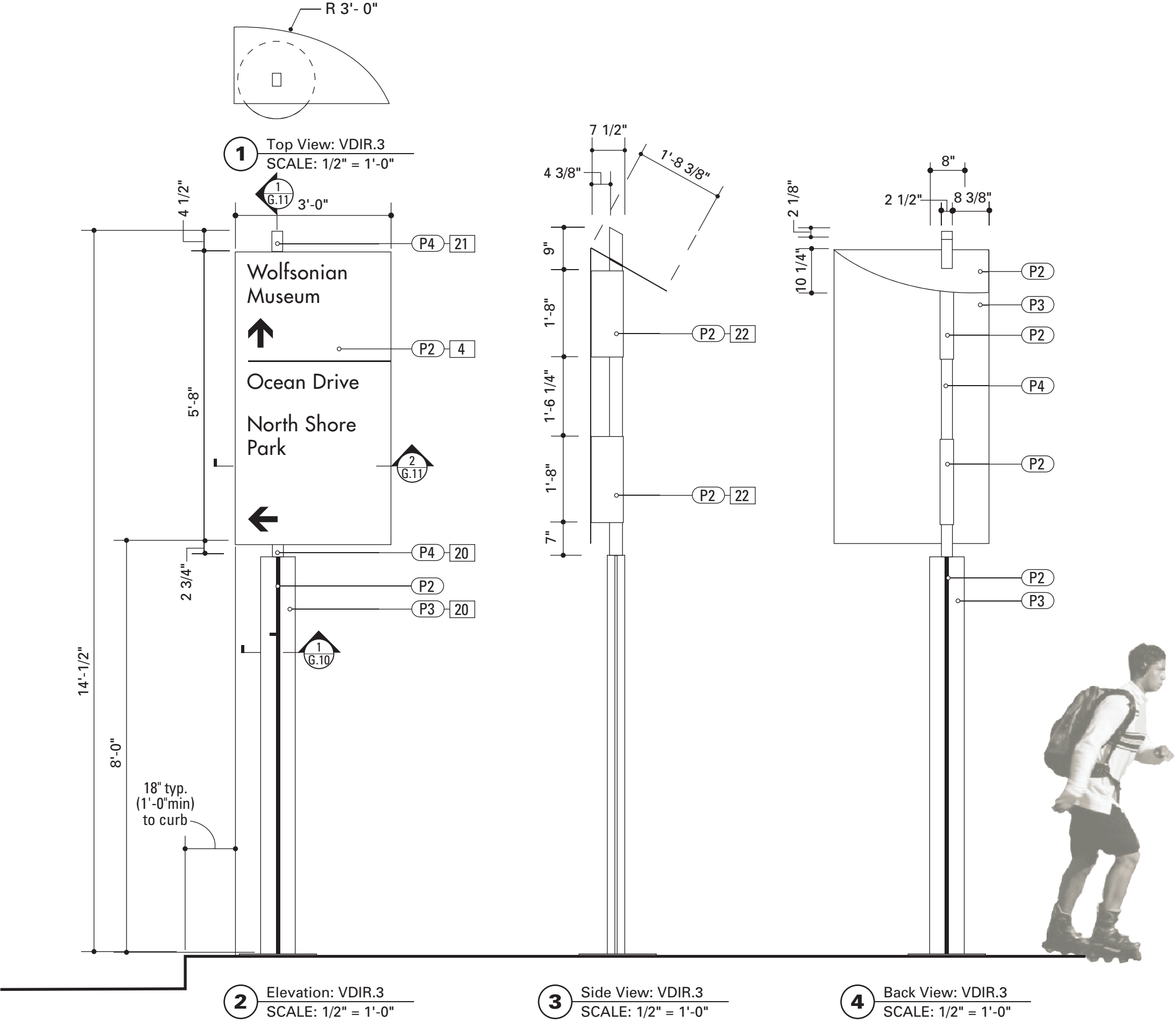
Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Angle Cut / -Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

22. BRACKET ASSEMBLY

Inner Bracket
Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket
Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



GRAPHIC LAYOUT:

- 3 1/2" Copy Height
use 6" line space to first baseline
Use 5 1/2" line space to
2nd and 3rd baseline of each listing

Use 9 1/2" line spacing to
first baseline of additional listings

Maximum # of characters per line:
approx. 13 (including spaces)

- 3" margin from left edge of panel
and 2" minimum margin from right edge of panel

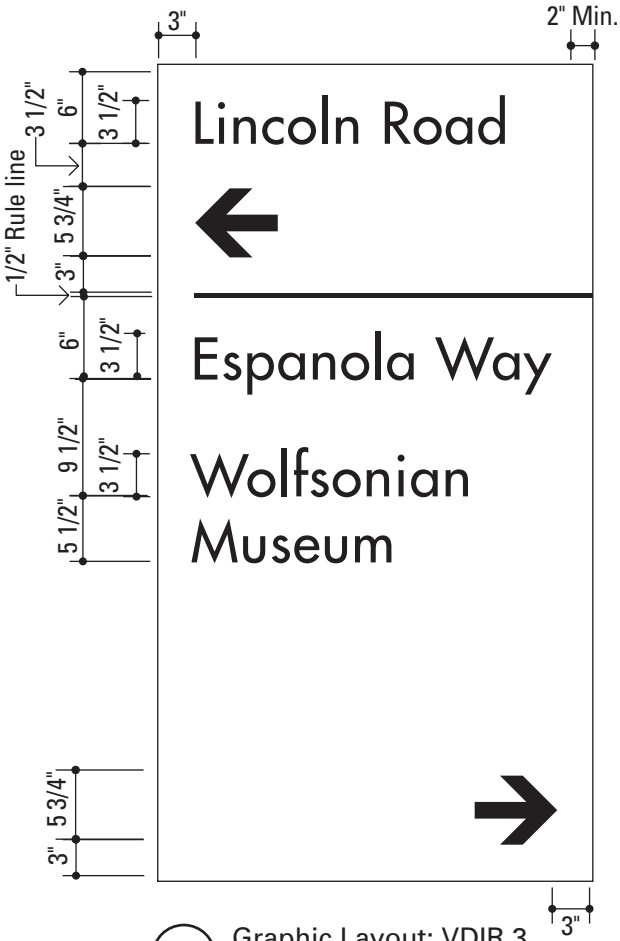
- 7" height straight arrow use 3" bottom spacing,
aligns with left margin

5 3/4" height of left arrow, aligns with left margin,
Use 3" bottom spacing

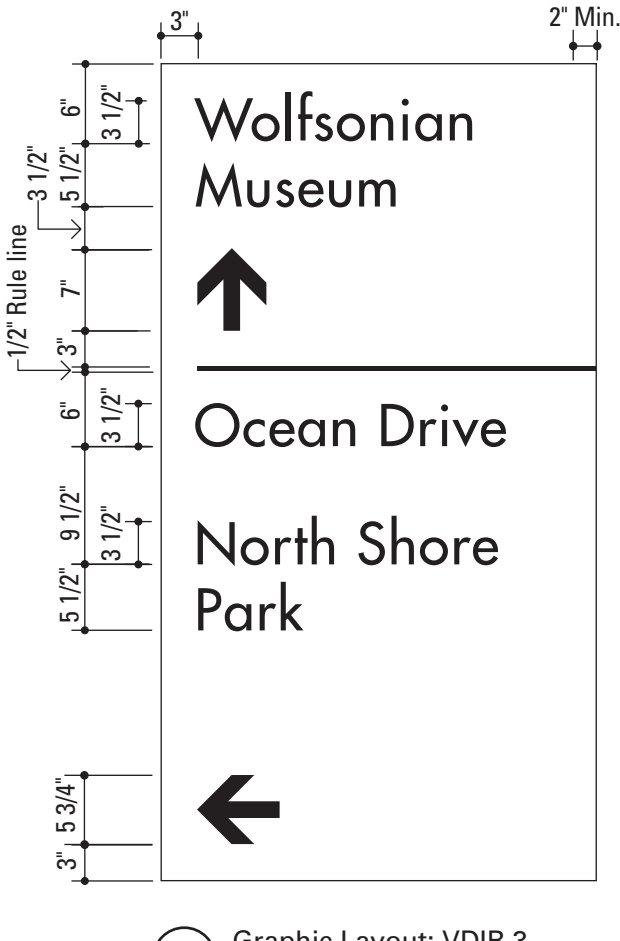
5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3" bottom spacing

- 1/2" thick rule line with every new directional arrow

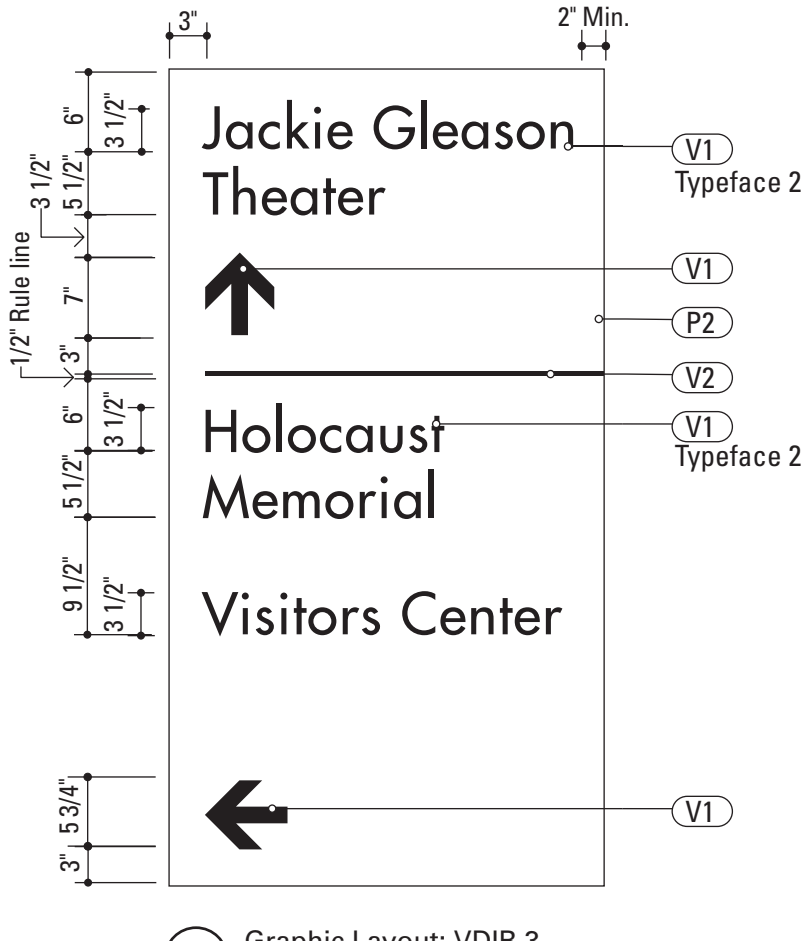
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



1 Graphic Layout: VDIR.3
SCALE: 3/4" = 1'-0"



2 Graphic Layout: VDIR.3
SCALE: 3/4" = 1'-0"



3 Graphic Layout: VDIR.3
SCALE: 3/4" = 1'-0"

GRAPHIC LAYOUT:

- 3 1/2" Copy Height
use 6" line space to first baseline
Use 5 1/2" line space to
2nd and 3rd baseline of each listing

Use 9 1/2" line spacing to
first baseline of additional listings

Maximum # of characters per line:
approx. 13 (including spaces)

- 3" margin from left edge of panel
and 2" minimum margin from right edge of panel

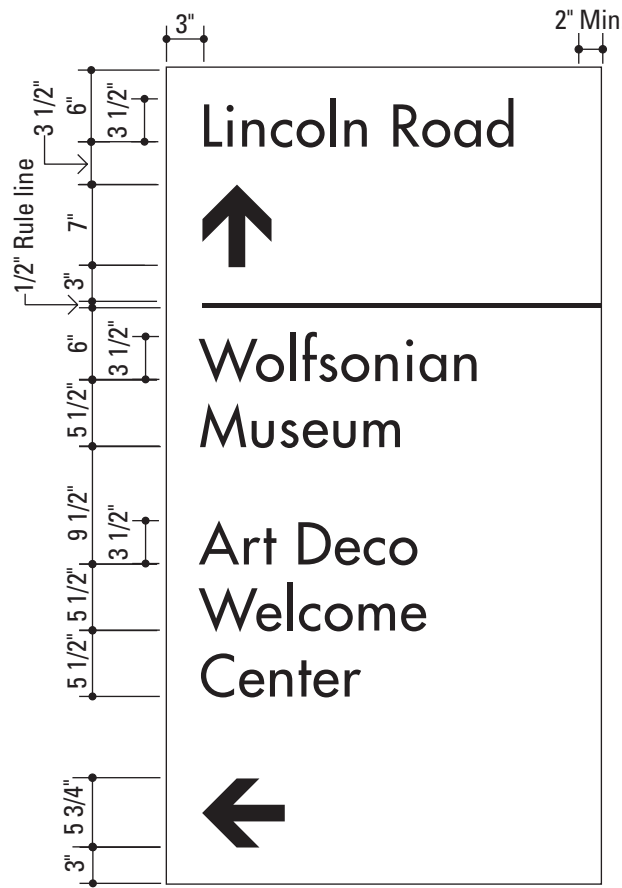
- 7" height straight arrow use 3" bottom spacing,
aligns with left margin

5 3/4" height of left arrow, aligns with left margin,
Use 3" bottom spacing

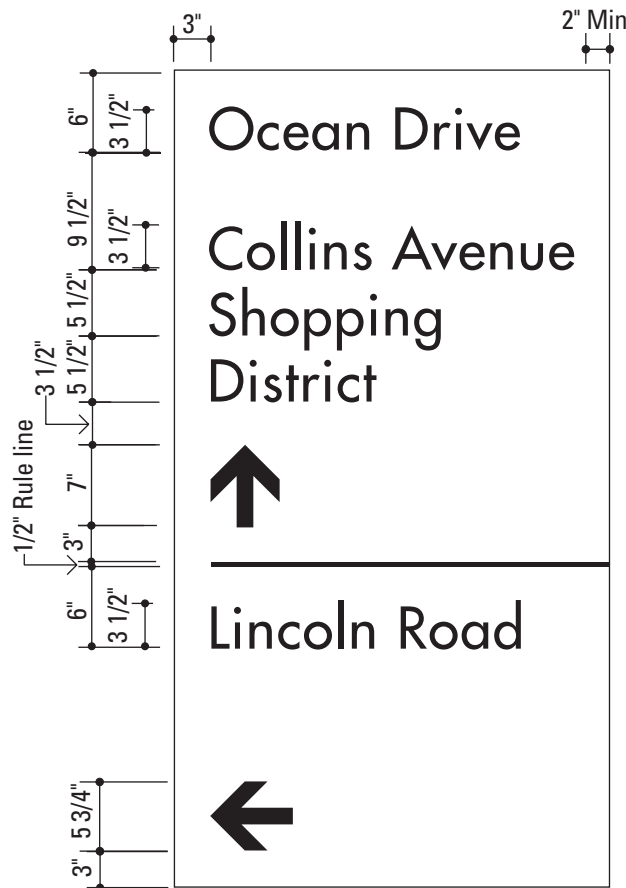
5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3" bottom spacing

- 1/2" thick rule line with every new directional arrow

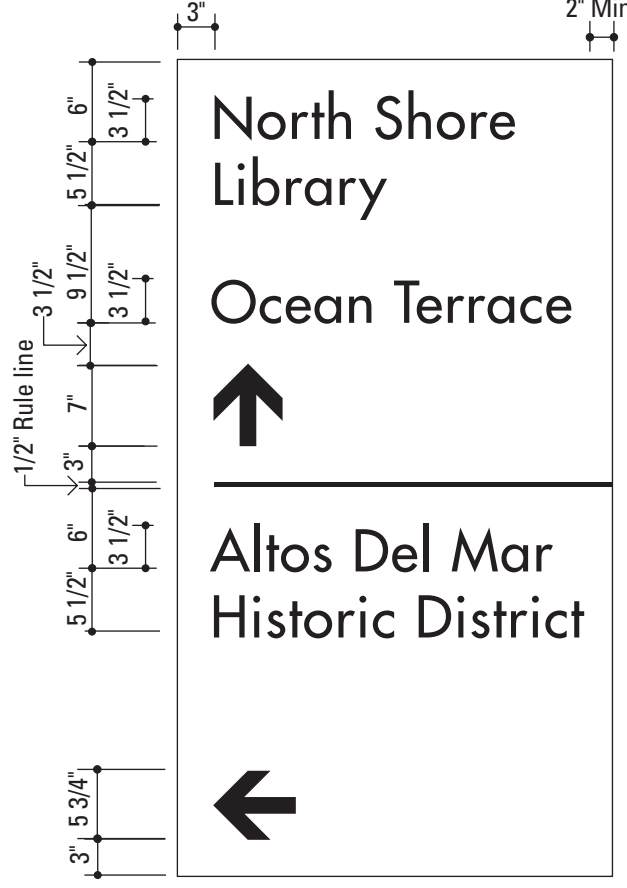
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



4 Graphic Layout: VDIR.3
SCALE: 3/4" = 1'-0"



5 Graphic Layout: VDIR.3
SCALE: 3/4" = 1'-0"



6 Graphic Layout: VDIR.3
SCALE: 3/4" = 1'-0"

SPECIFICATIONS:

3. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Cut 90 Degree Edges
Fastener: Mech. Weld to Inner Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

20. POST ASSEMBLY

Outer Post

Material: Aluminum
Size: Custom
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

22. BRACKET ASSEMBLY

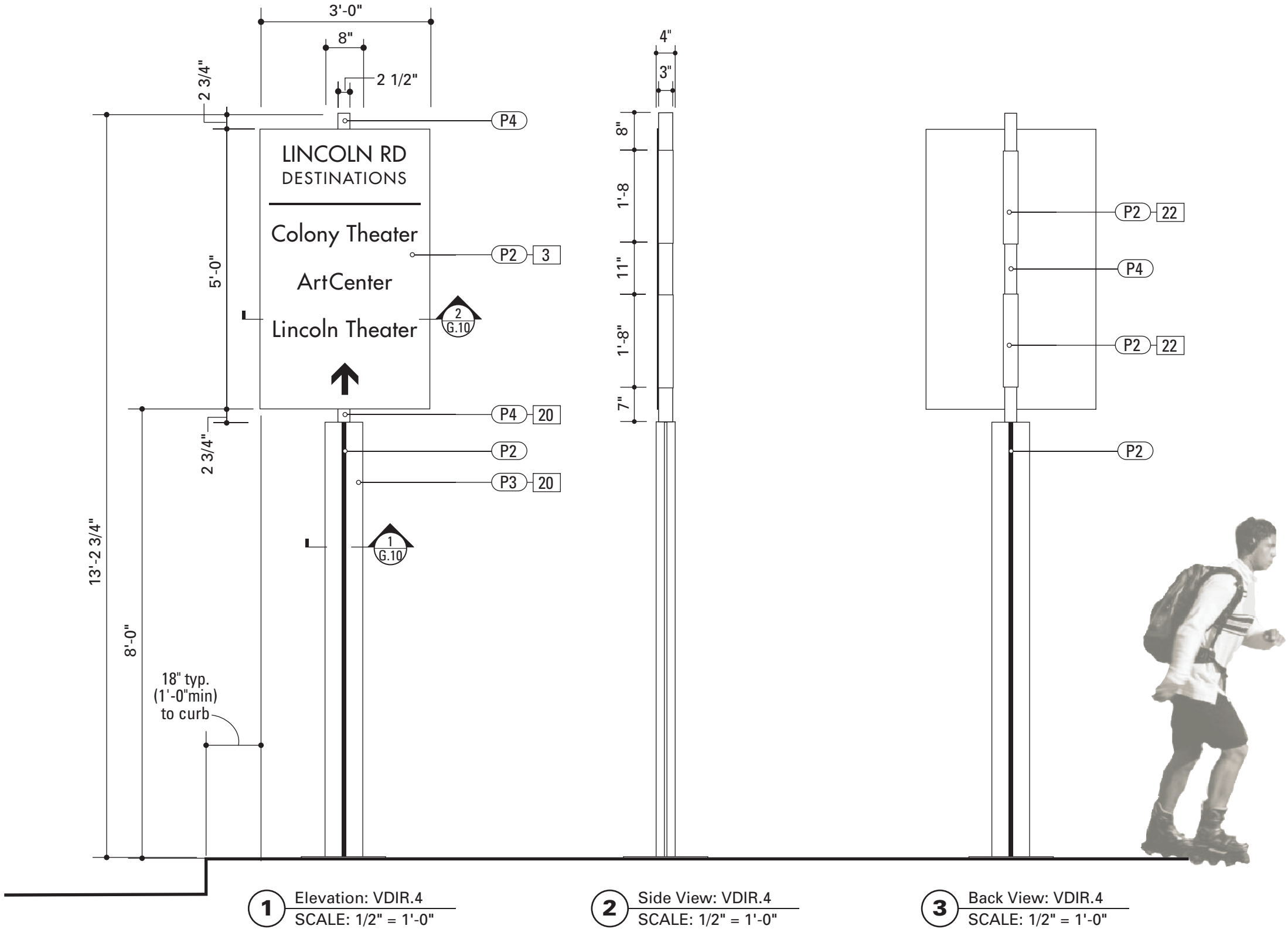
Inner Bracket

Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket

Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

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GRAPHIC LAYOUT:

HEADER:

- 3 1/2" Copy Height Centered on panel
use 7" line space to first baseline.
Use 2 1/2" copy height for additional lines,
use 5" line space to 2nd baseline

LISTINGS:

- 3 1/2" Copy Height Centered on panel
Use 7 3/4" line space to first baseline after rule line.
Use 10 1/4" line space to 2nd and 3rd baseline
of additional listings

Maximum # of characters per line:
approx. 14 (including spaces)

- 2" minimum margin from left and right edge of panel

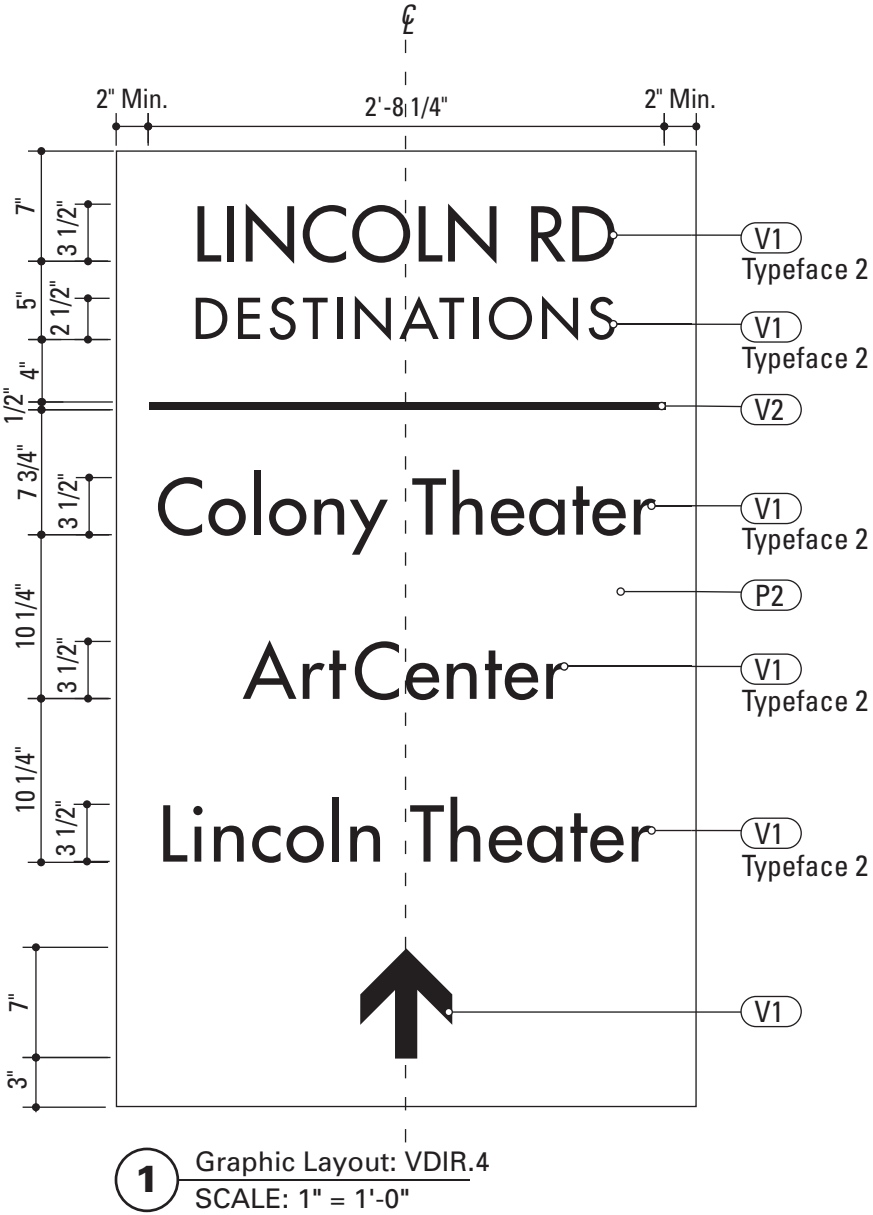
- 7" height straight arrow use 3" bottom spacing,
centered on panel

5 3/4" height of left arrow, centered on panel,
Use 3" bottom spacing

5 3/4" height of right arrow, centered on panel,
Use 3" bottom spacing

- 1/2" thick rule line after header

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



SPECIFICATIONS:

4. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Router Cut / Breakformed (1) piece
Fastener: Mech. Fasten to Bracket Assembly/ Post Cap
Surface Process: Paint all exposed surfaces
Front / Top: Color P2 Blue
Edges: Color P2
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Back / Underside: Color P3 Silver
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

20. POST ASSEMBLY

Outer Post

Material: Aluminum
Size: Custom
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

21. CAP

Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Angle Cut / -Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

22. BRACKET ASSEMBLY

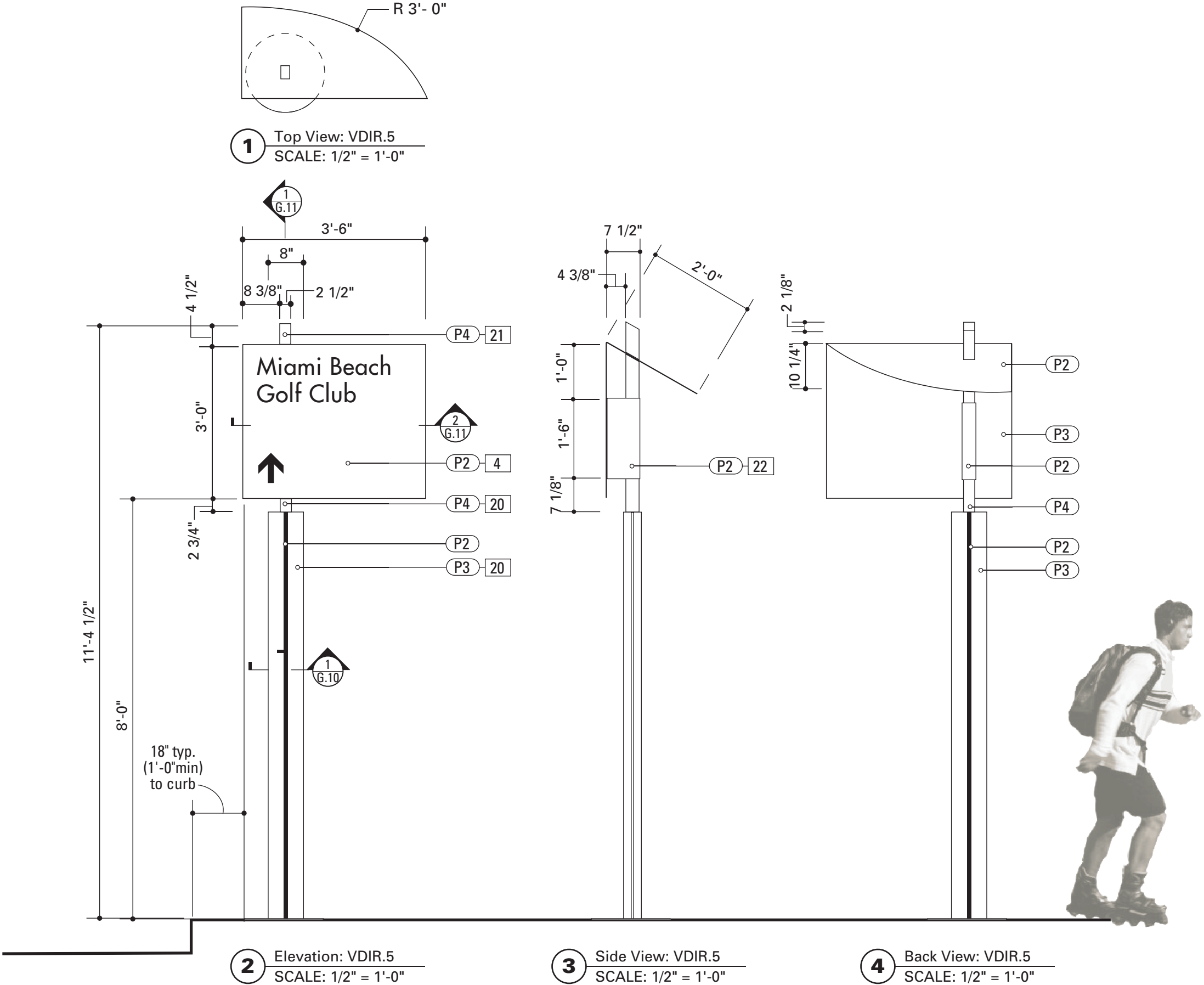
Inner Bracket

Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket

Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

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GRAPHIC LAYOUT:

- 4" Copy Height
use 6 3/4" line space to first baseline,
use 6 1/4" line space to 2nd and 3rd baseline of listings

Maximum # of characters per line:
approx. 14 (including spaces)

- 3 1/2" margin from left edge of panel
and 2" minimum margin from right edge of panel

- 7" height straight arrow use 3 1/2" bottom spacing,
aligns with left margin

5 3/4" height of left arrow, aligns with left margin,
Use 3 1/2" bottom spacing

5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3 1/2" bottom spacing

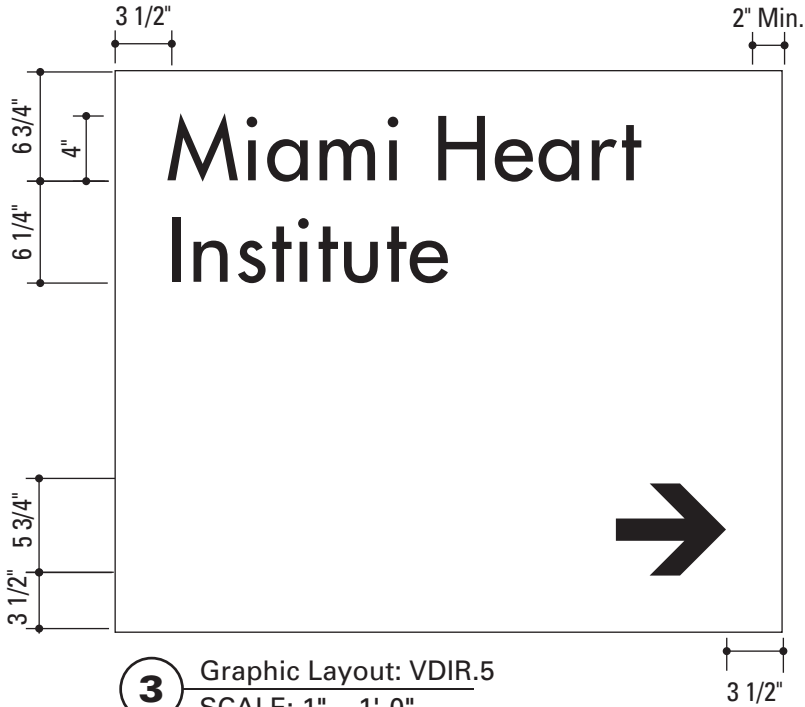
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



1 Graphic Layout: VDIR.5
SCALE: 1" = 1'-0"



2 Graphic Layout: VDIR.5
SCALE: 1" = 1'-0"



3 Graphic Layout: VDIR.5
SCALE: 1" = 1'-0"

SPECIFICATIONS:

4. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Router Cut /Breakformed (1) piece
Fastener: Mech. Fasten to Bracket Assembly/ Post Cap
Surface Process:Paint all exposed surfaces
Front / Top: Color P2 Blue
Edges: Color P2
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Back / Underside: Color P3 Silver
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

20. POST ASSEMBLY

Outer Post

Material: Aluminum
Size: Custom
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

21. CAP

Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Angle Cut /-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

22. BRACKET ASSEMBLY

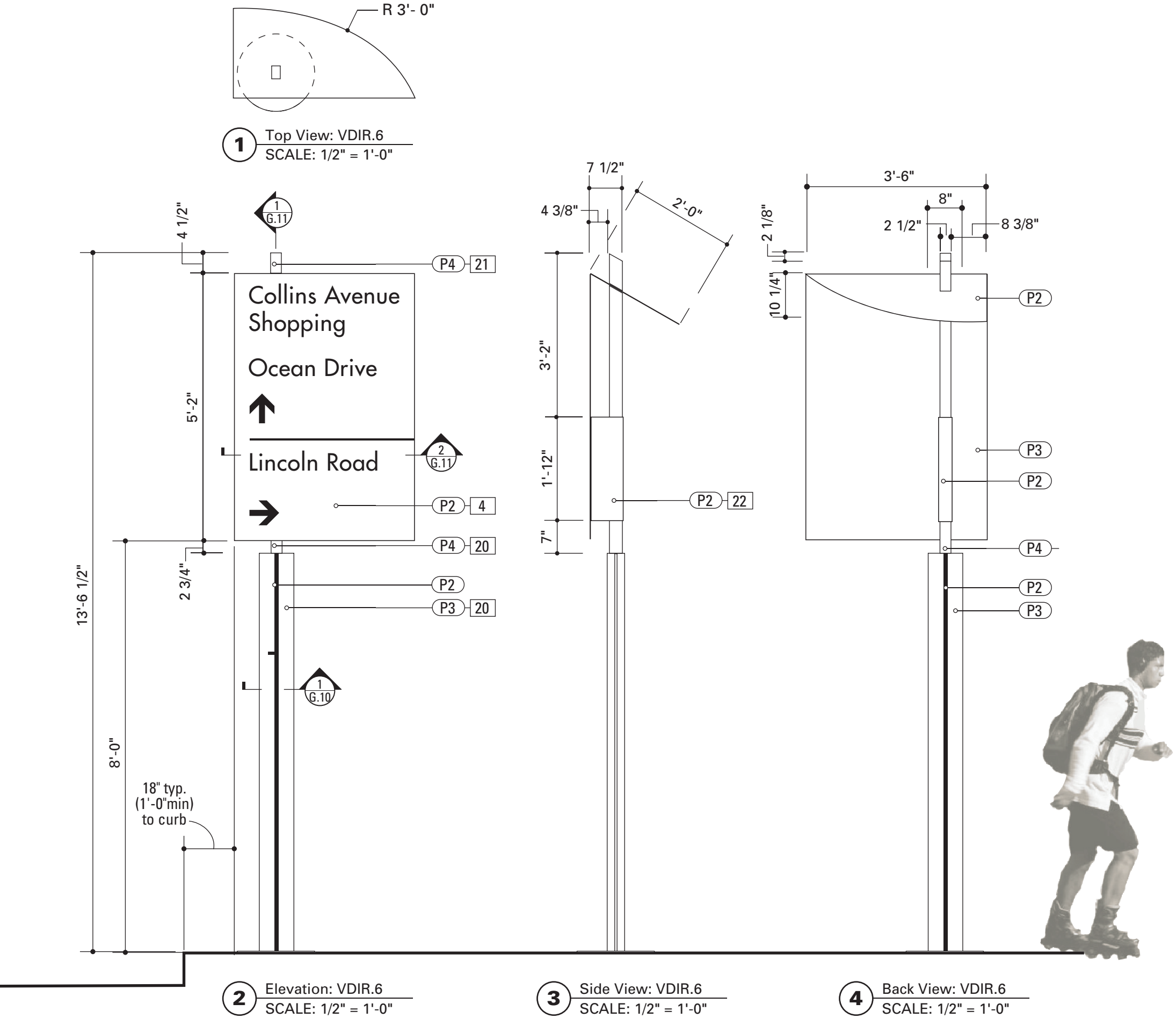
Inner Bracket

Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket

Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



GRAPHIC LAYOUT:

- 4" Copy Height
use 6 3/4" line space to first baseline,
use 6 1/4" line space to 2nd and 3rd baseline of listings
use 10 1/2" line space to baseline of additional listings

Maximum # of characters per line:
approx. 14 (including spaces)

- 3 1/2" margin from left edge of panel
and 2" minimum margin from right edge of panel

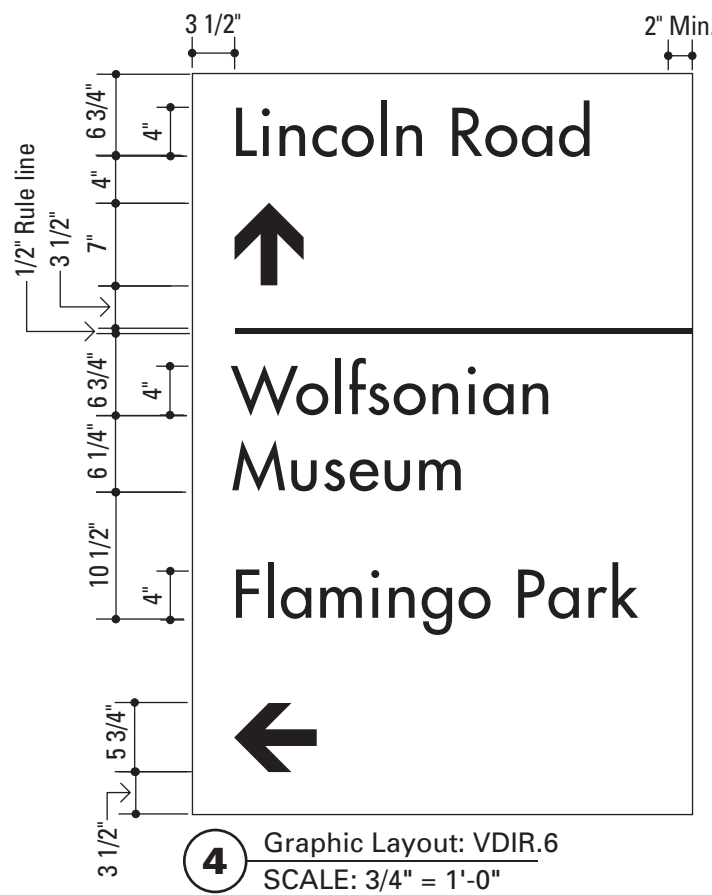
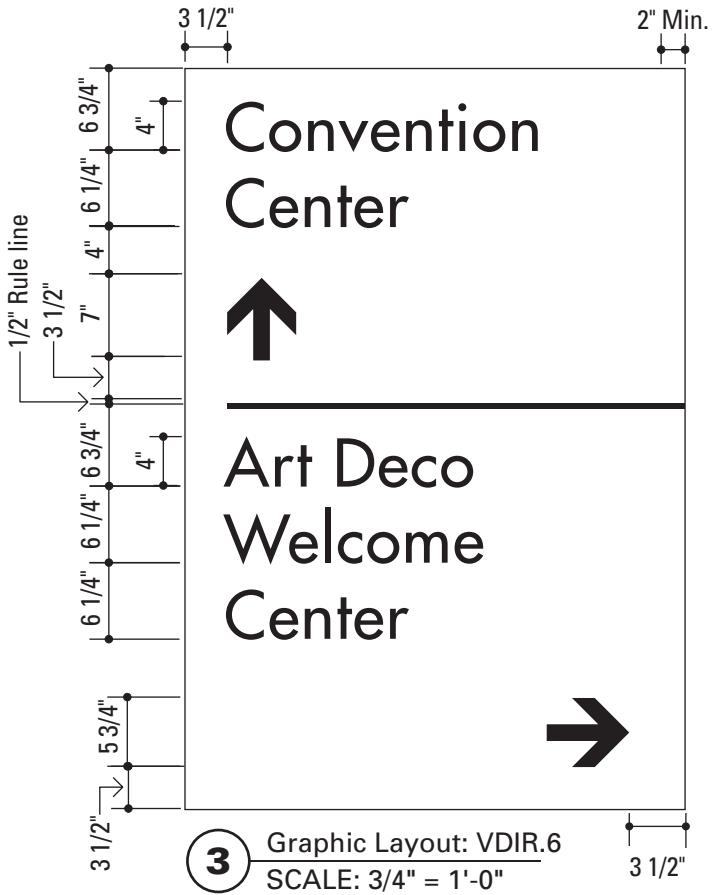
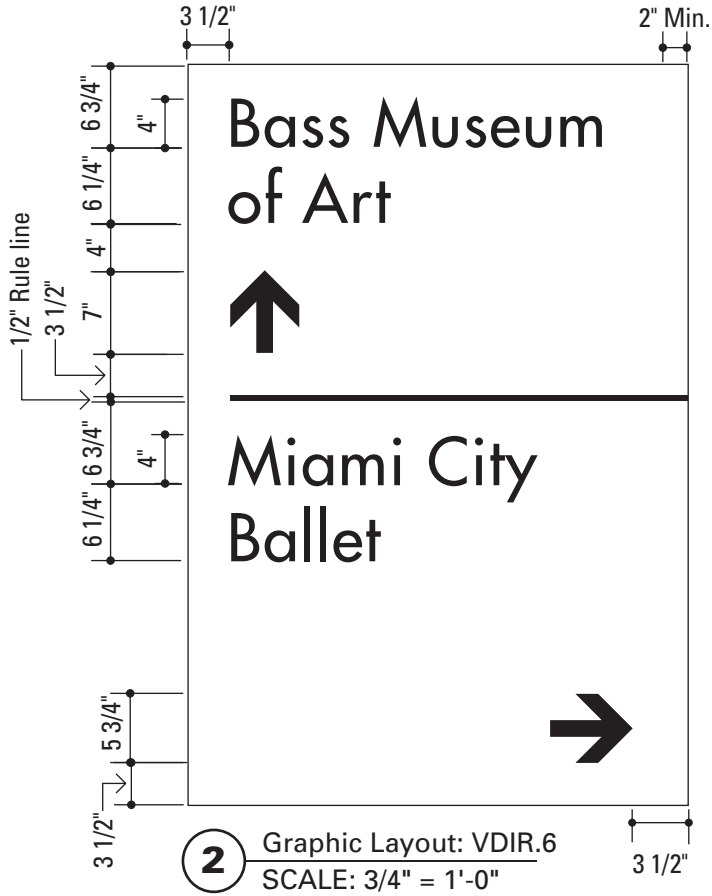
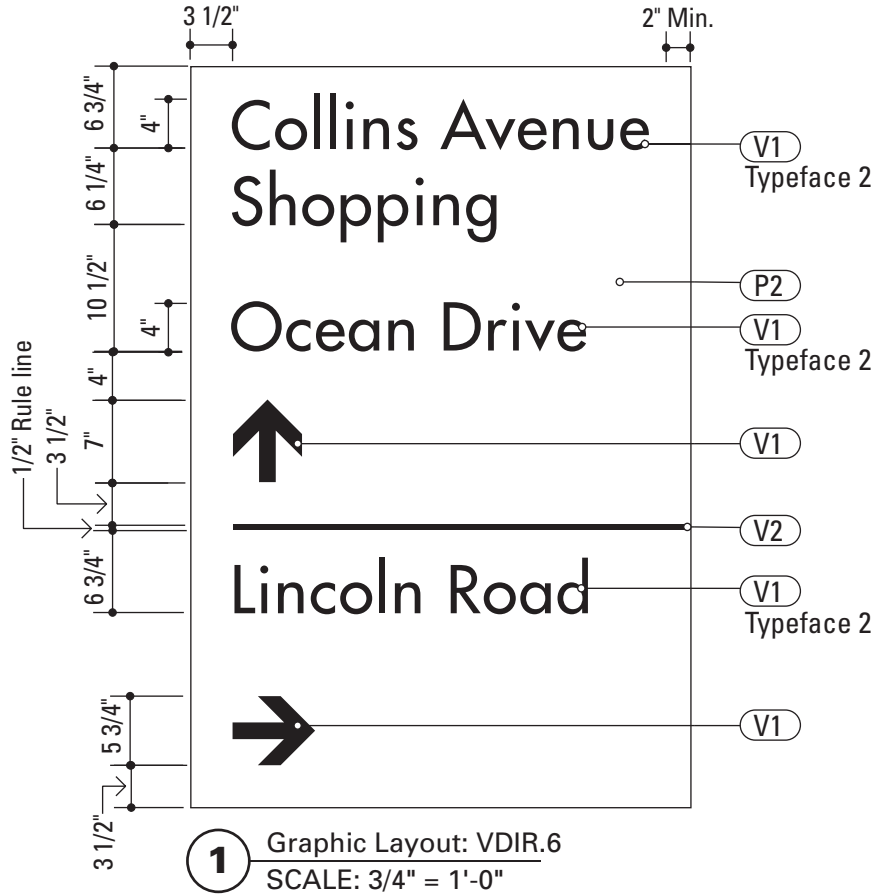
- 7" height straight arrow use 3 1/2" bottom spacing,
aligns with left margin

5 3/4" height of left arrow, aligns with left margin,
Use 3 1/2" bottom spacing

5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3 1/2" bottom spacing

- 1/2" thick rule line with every new directional arrow

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



GRAPHIC LAYOUT:

- 4" Copy Height
use 6 3/4" line space to first baseline,
use 6 1/4" line space to 2nd and 3rd baseline of listings
use 10 1/2" line space to baseline of additional listings

Maximum # of characters per line:
approx. 14 (including spaces)

- 3 1/2" margin from left edge of panel
and 2" minimum margin from right edge of panel

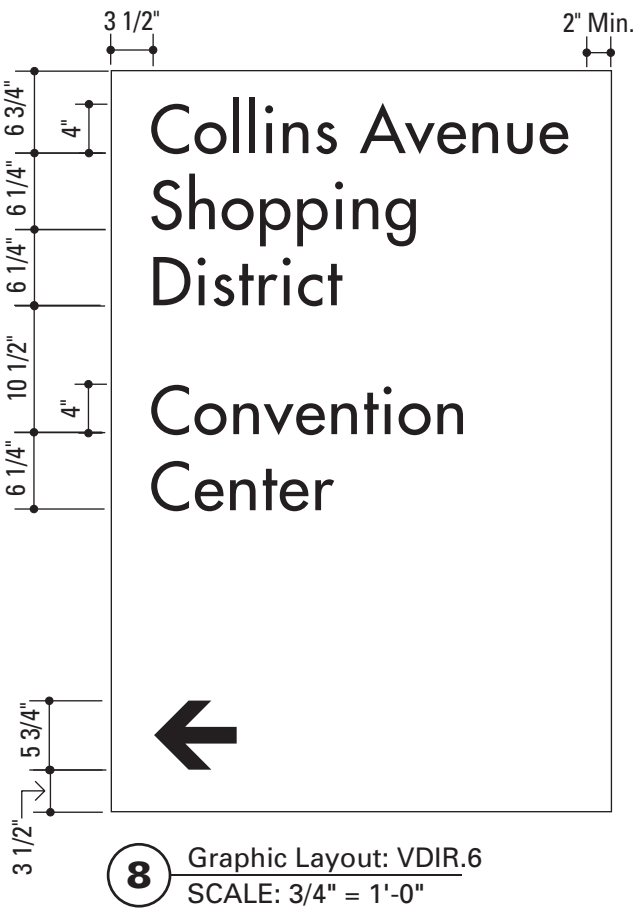
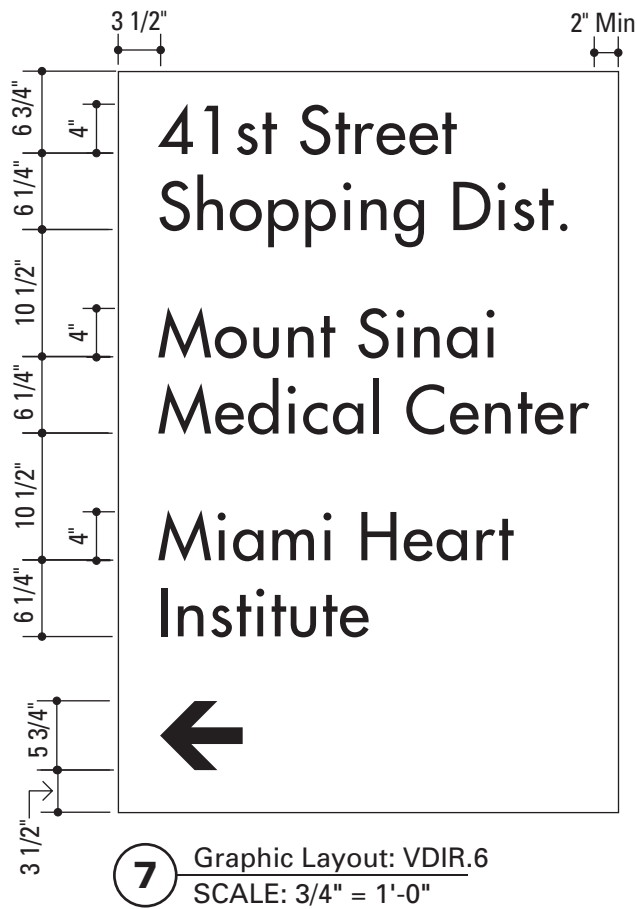
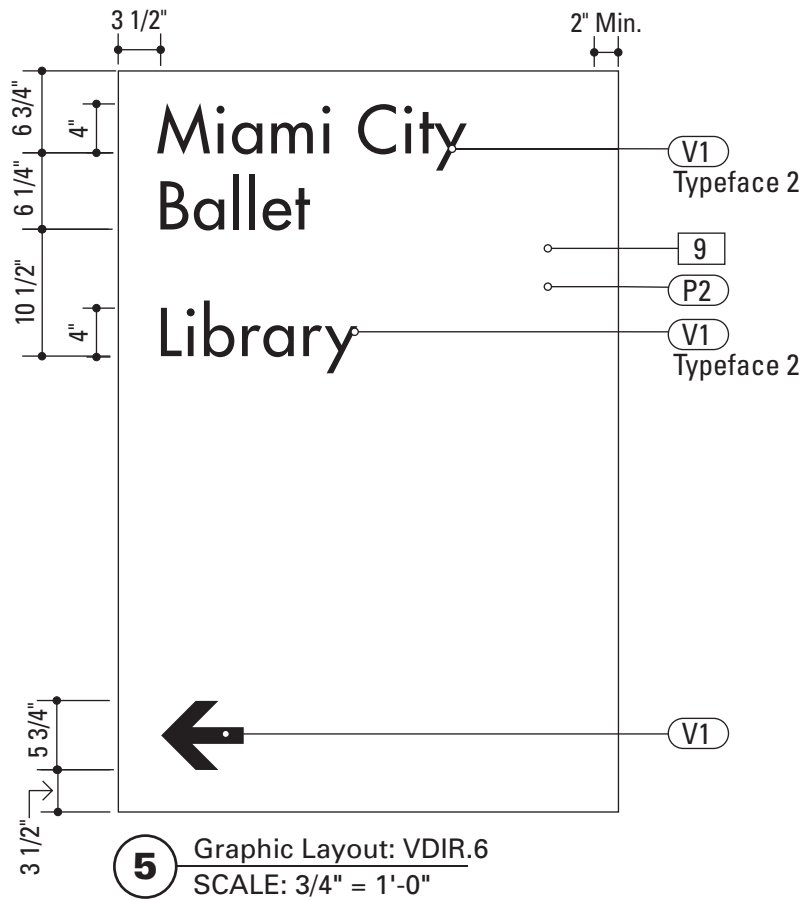
- 7" height straight arrow use 3 1/2" bottom spacing,
aligns with left margin

5 3/4" height of left arrow, aligns with left margin,
Use 3 1/2" bottom spacing

5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3 1/2" bottom spacing

- 1/2" thick rule line with every new directional arrow

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



SPECIFICATIONS:

4. SIGN PANEL

Panel
Material: 1/4"Thk. Alum.
Fabrication Process: Router Cut /Breakformed (1) piece
Fastener: Mech. Fasten to Bracket Assembly/ Post Cap
Surface Process:Paint all exposed surfaces
Front / Top: Color P2 Blue
Edges: Color P2
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Back / Underside: Color P3 Silver
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

20. POST ASSEMBLY

Outer Post
Material: Aluminum
Size: Custom
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

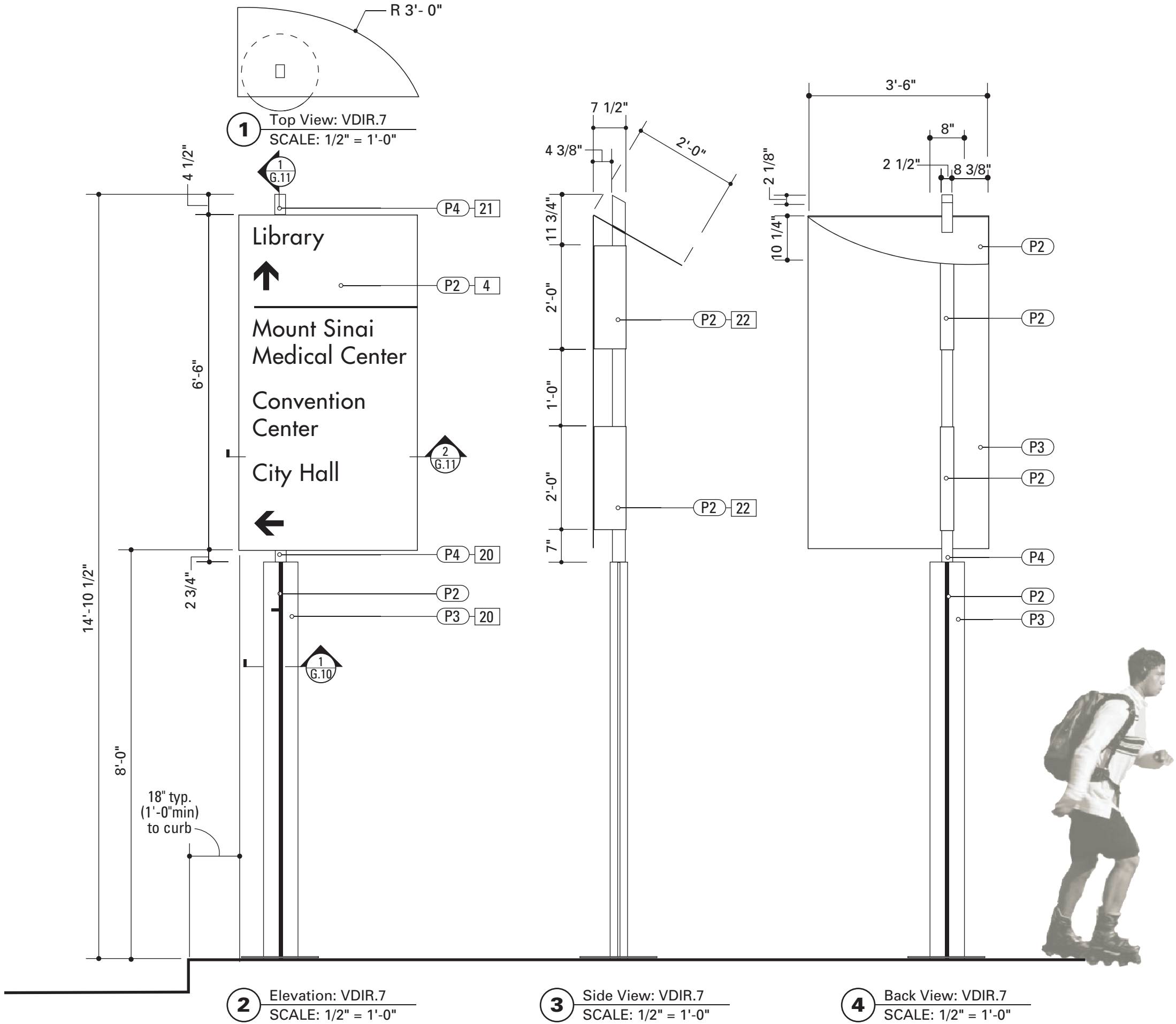
Inner Post
Material: 1/4"Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

21. CAP
Material: 1/4"Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Angle Cut /-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

22. BRACKET ASSEMBLY
Inner Bracket
Material: 1/4"Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket
Material: 1/8"Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

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GRAPHIC LAYOUT:

- 4" Copy Height
use 6 3/4" line space to first baseline,
use 6 1/4" line space to 2nd and 3rd baseline of listings
use 10 1/2" line space to baseline of additional listings

Maximum # of characters per line:
approx. 14 (including spaces)

- 3 1/2" margin from left edge of panel
and 2" minimum margin from right edge of panel

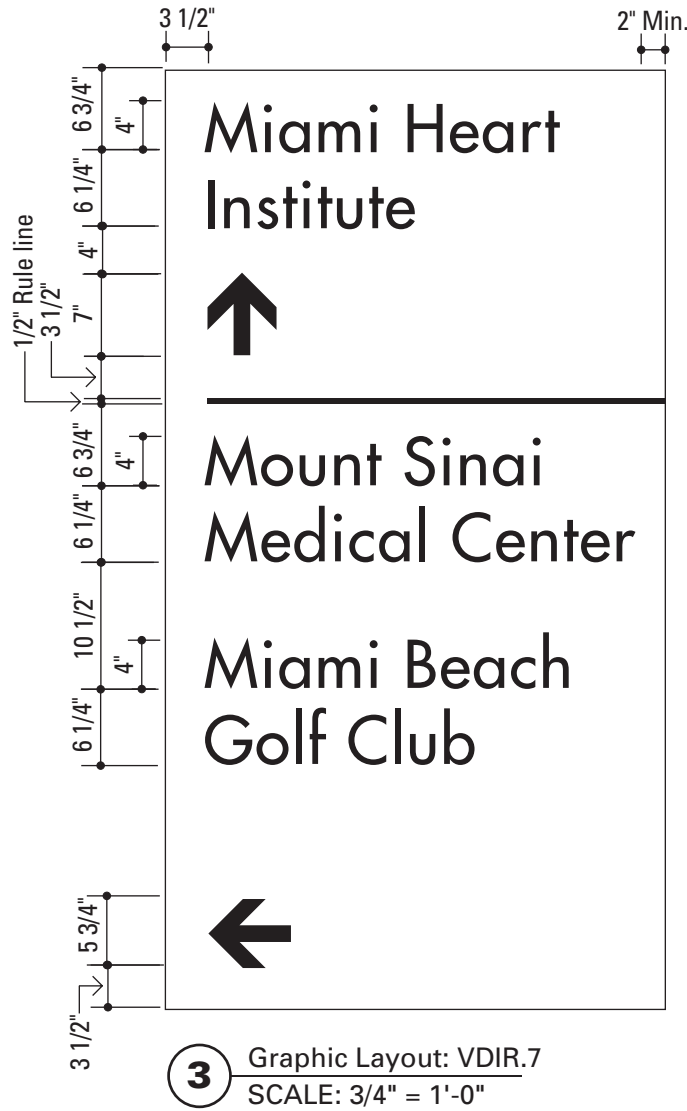
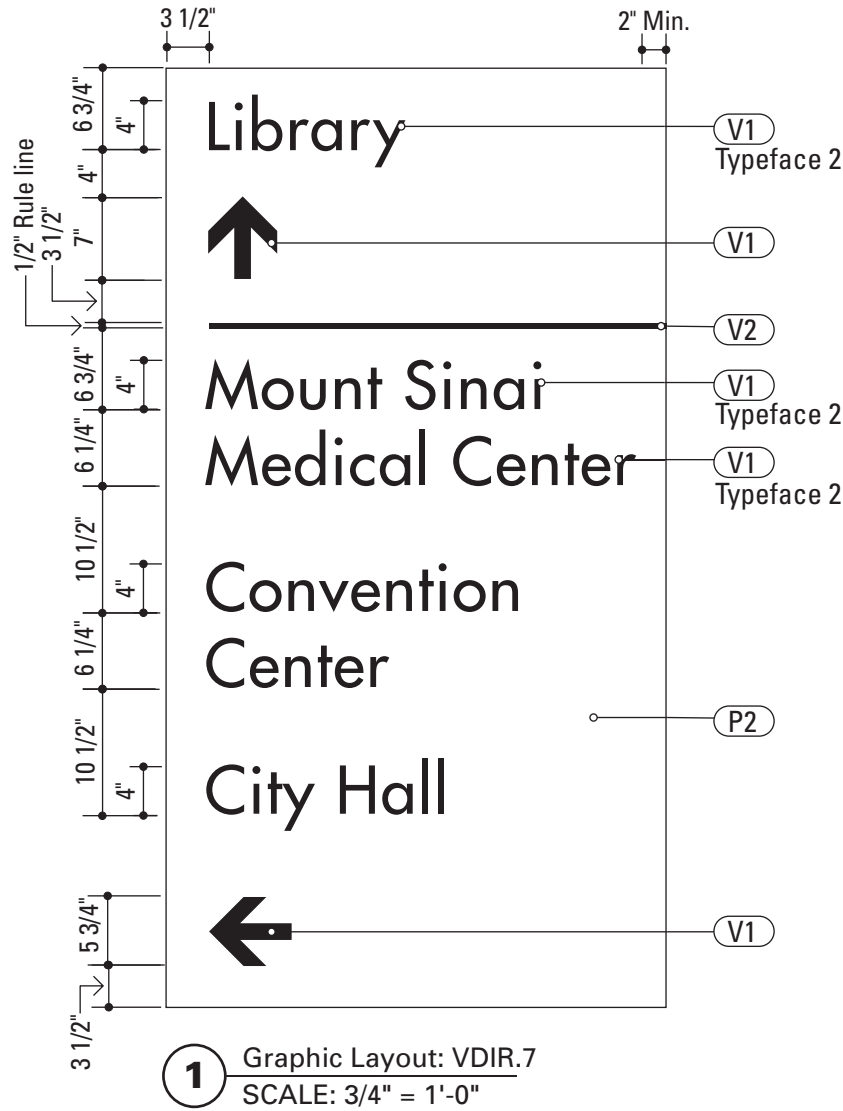
- 7" height straight arrow use 3 1/2" bottom spacing,
aligns with left margin

5 3/4" height of left arrow, aligns with left margin,
Use 3 1/2" bottom spacing

5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3 1/2" bottom spacing

- 1/2" thick rule line with every new directional arrow

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



GRAPHIC LAYOUT:

- 4" Copy Height
use 6 3/4" line space to first baseline,
use 6 1/4" line space to 2nd and 3rd baseline of listings
use 10 1/2" line space to baseline of additional listings

Maximum # of characters per line:
approx. 14 (including spaces)

- 3 1/2" margin from left edge of panel
and 2" minimum margin from right edge of panel

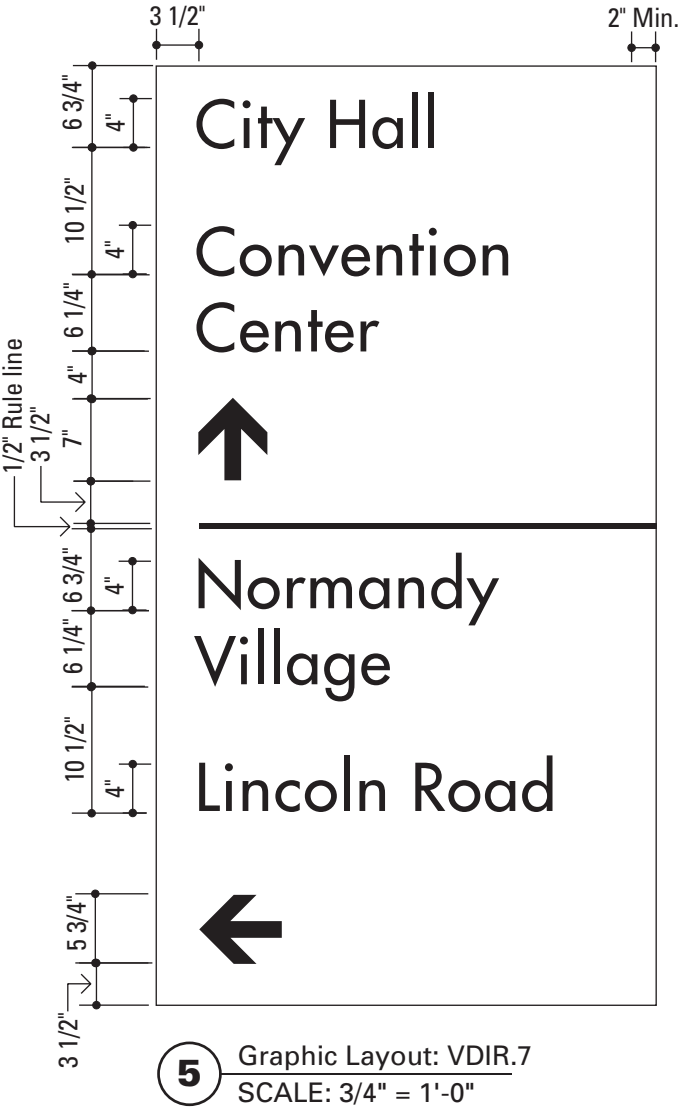
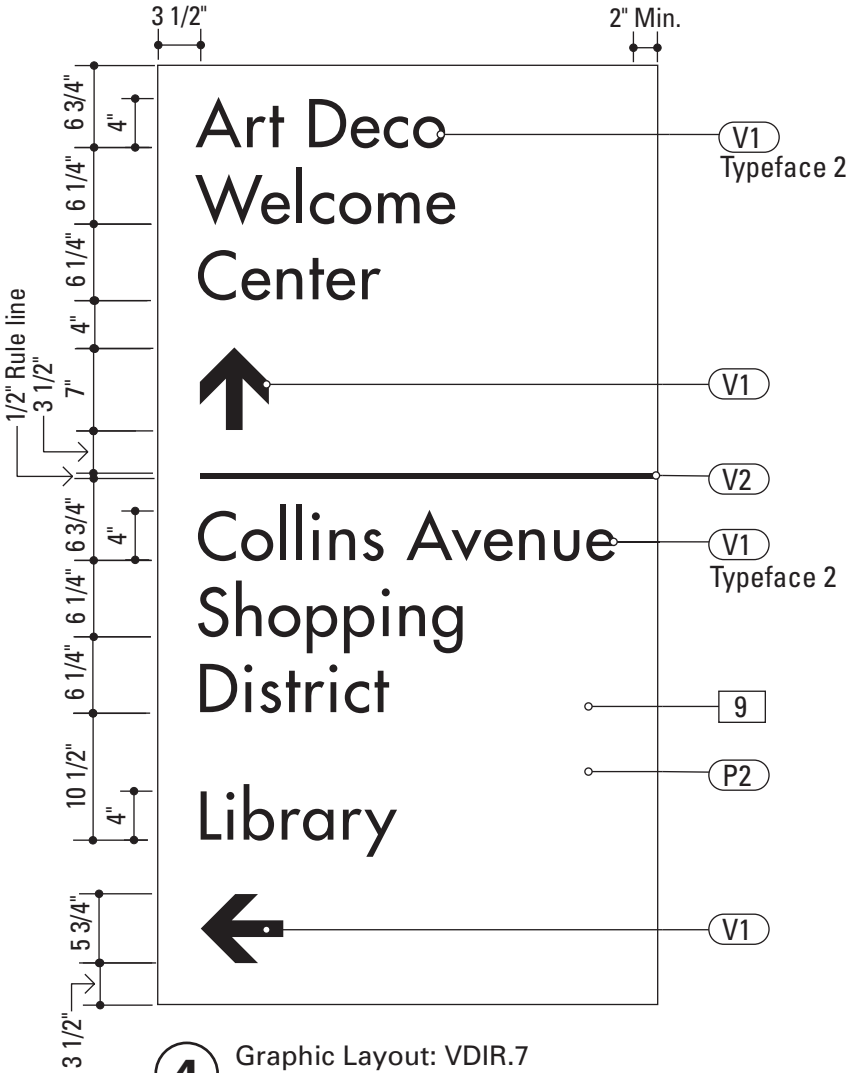
- 7" height straight arrow use 3 1/2" bottom spacing,
aligns with left margin

5 3/4" height of left arrow, aligns with left margin,
Use 3 1/2" bottom spacing

5 3/4" height of right arrow,
aligns with minimum right margin of 2",
Use 3 1/2" bottom spacing

- 1/2" thick rule line with every new directional arrow

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



SPECIFICATIONS:

3. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Cut 90 Degree Edges
Fastener: Mech. Weld to Inner Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Rule Line Color: Custom Screenprinted color on Reflective
Material: Vinyl
Process: Electronically Cut / Applied

20. POST ASSEMBLY

Outer Post

Material: Aluminum
Size: Custom
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

Material: 1/4" Thk. Alum.
Size: 2" x 3"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

22. BRACKET ASSEMBLY

Inner Bracket

Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket

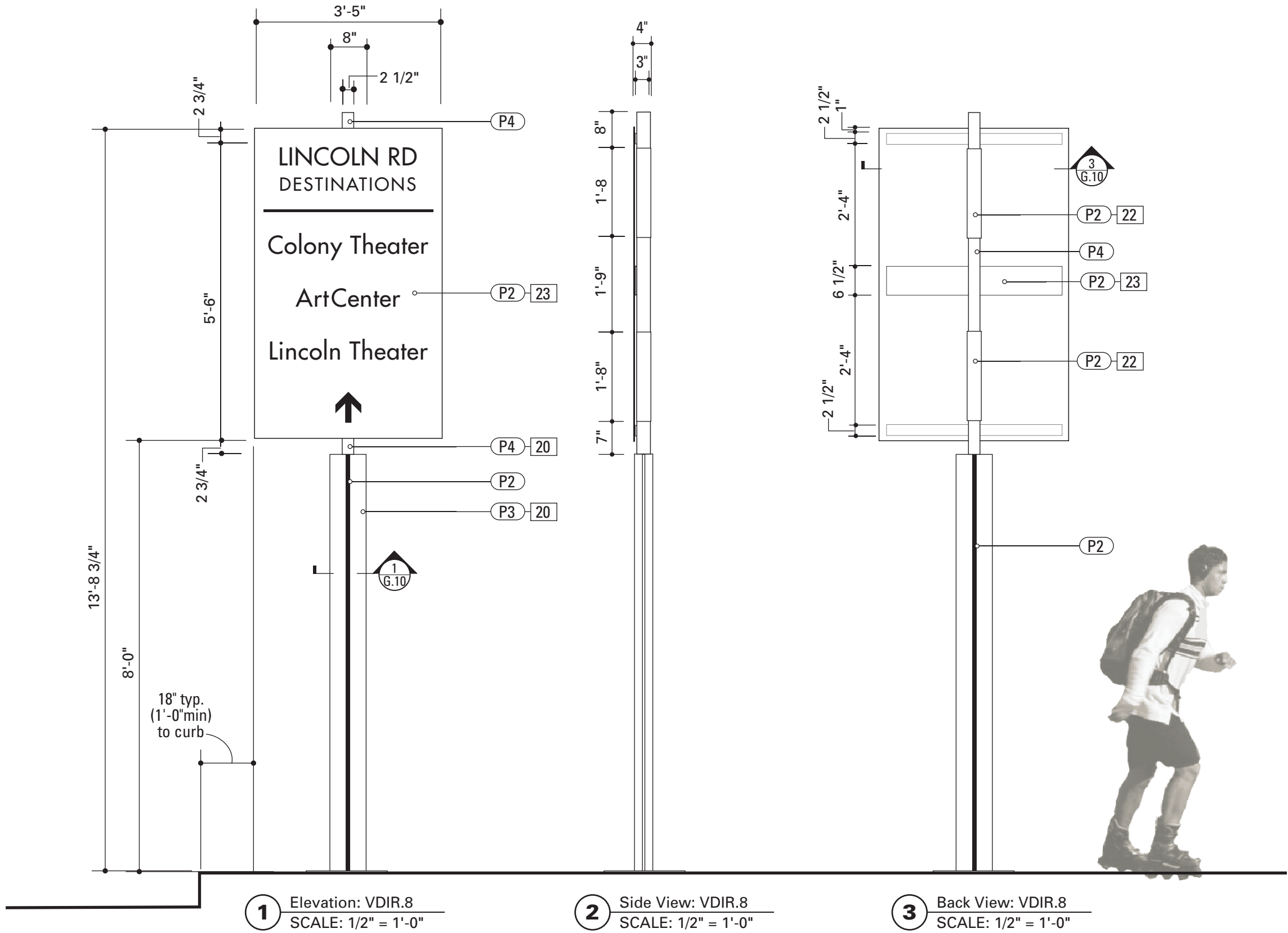
Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

23. SUPPORT BAR

Inner Bracket

Material: 1/4" Thk. Alum.
Fabrication Process: Router Cut
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

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GRAPHIC LAYOUT:

HEADER

- 4" Copy Height Centered on panel
use 8 1/4" line space to first baseline.
Use 3" copy height for additional lines,
use 5 1/2" line space to 2nd baseline

LISTINGS

- 4" Copy Height Centered on panel
Use 9 1/4" line space to first baseline after rule line.
Use 11 3/4" line space to 2nd and 3rd baseline
of additional listings

Maximum # of characters per line:
approx. 14 (including spaces)

- 2" margin from left edge of panel
and 2" minimum margin from right edge of panel

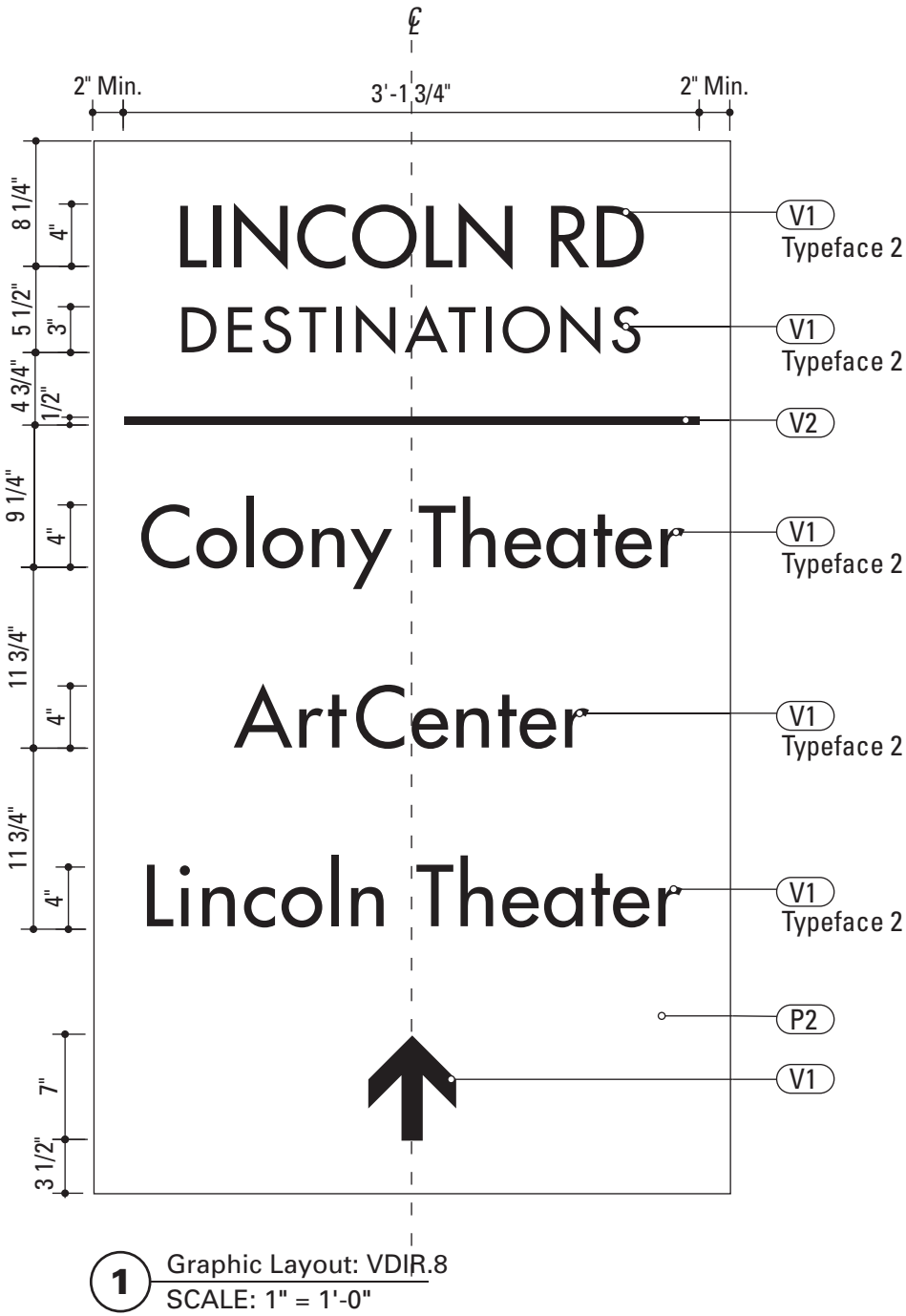
- 7" height straight arrow use 3 1/2" bottom spacing,
centered on panel

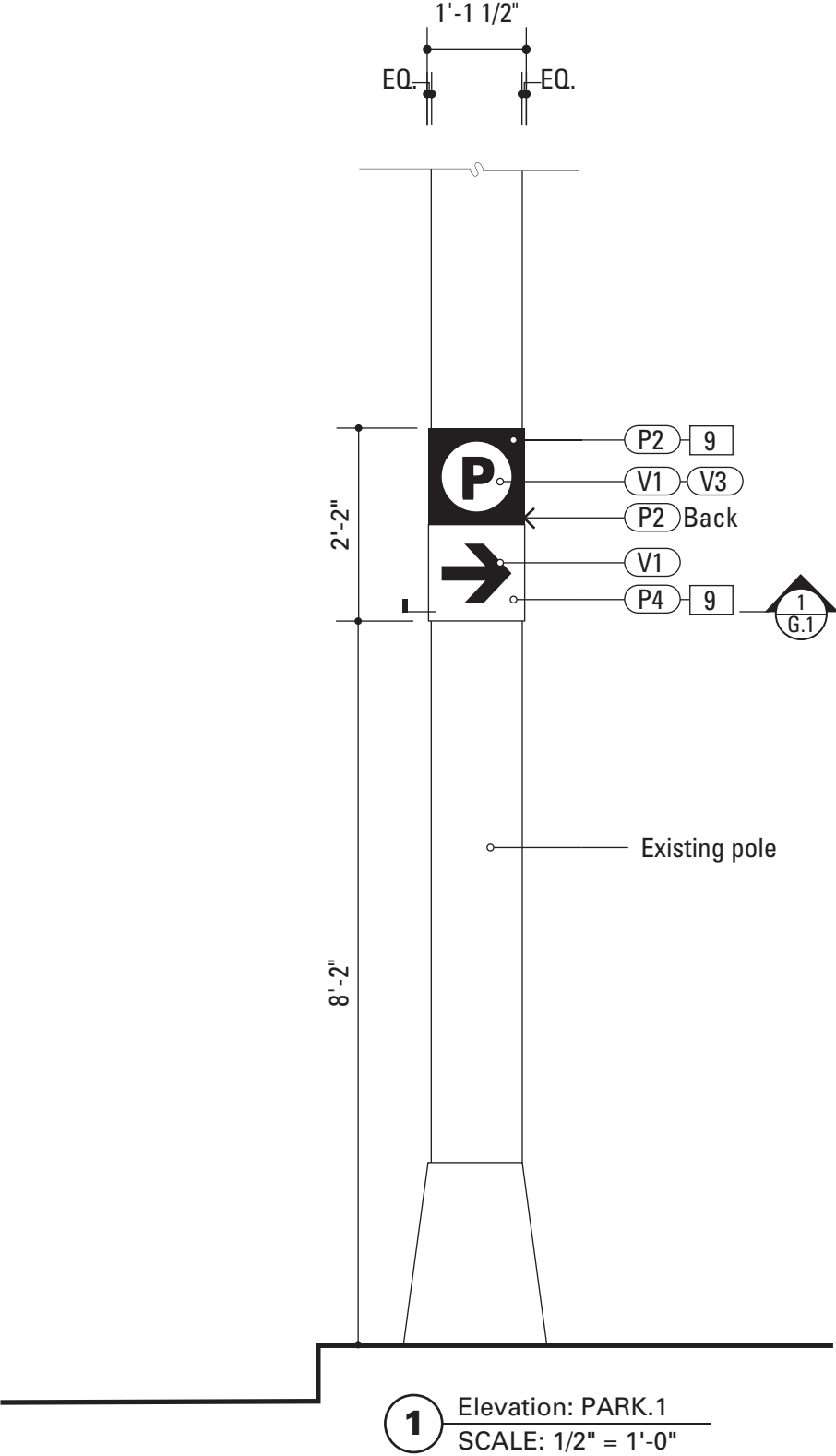
5 3/4" height of left arrow, centered on panel,
Use 3 1/2" bottom spacing

5 3/4" height of right arrow, centered on panel,
Use 3 1/2" bottom spacing

- 1/2" thick rule line after header

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ence and graphic layout only and do not represent any specific sign
location. Reference the sign message schedule for exact terminology.





SIGN TYPE: **PARK.1**

SPECIFICATIONS:

9. SIGN PANEL

Panel
Material: 1/8" Thk. Alum.
Fabrication Process: Router Cut
Edges: Smooth
Corners: Eased
Fastener: Weld to U-Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

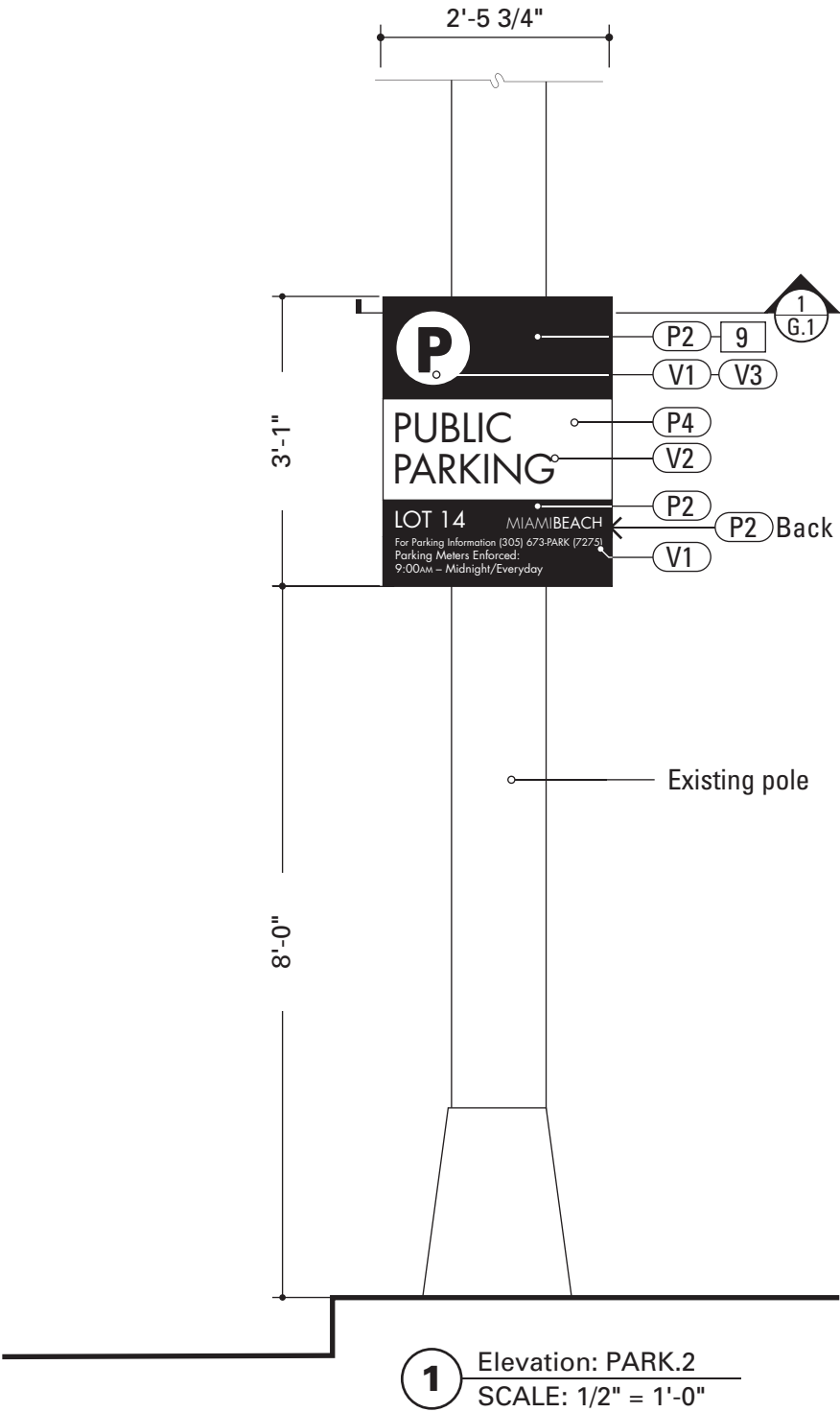
Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

11. BUCKLE BRACKET ASSEMBLY

Manufacturer: Garden State Highway Products 1-800-338-5685
Strapping
Material: Stainless Steel
Size: 3/4" x .020"; Fits 4" up to 12" Dia. Poles

U Bracket
Product: P5AA
Material: Aluminum
Size: Fits 4" up to 12" Dia. Poles
Fastener: Weld to Sign Panel
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: If poles are 4" or less use U-Bracket M5AA. Fabricator to Field Verify Locations.



SIGN TYPE: **PARK.2**

SPECIFICATIONS:

9. SIGN PANEL

Panel
Material: 1/8" Thk. Alum.
Fabrication Process: Router Cut
Edges: Smooth
Corners: Eased
Fastener: Weld to U-Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

11. BUCKLE BRACKET ASSEMBLY

Manufacturer: Garden State Highway Products 1-800-338-5685
Strapping
Material: Stainless Steel
Size: 3/4" x .020"; Fits 4" up to 12" Dia. Poles

U Bracket
Product: P5AA
Material: Aluminum
Size: Fits 4" up to 12" Dia. Poles
Fastener: Weld to Sign Panel
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: If poles are 4" or less use U-Bracket M5AA. Fabricator to Field Verify Locations.

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SPECIFICATIONS:

5. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Cut 90 Degree Edges
Fastener: Mech. Weld to Inner Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Color: Custom Screenprinted color
Material: Vinyl
Process: Electronically Cut / Applied

6. POST ASSEMBLY

Outer Post

Material: Aluminum
Size: 4" Dia.
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

Material: Aluminum
Size: 2 1/2" x 2 1/2"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

7. BRACKET ASSEMBLY

Inner Bracket

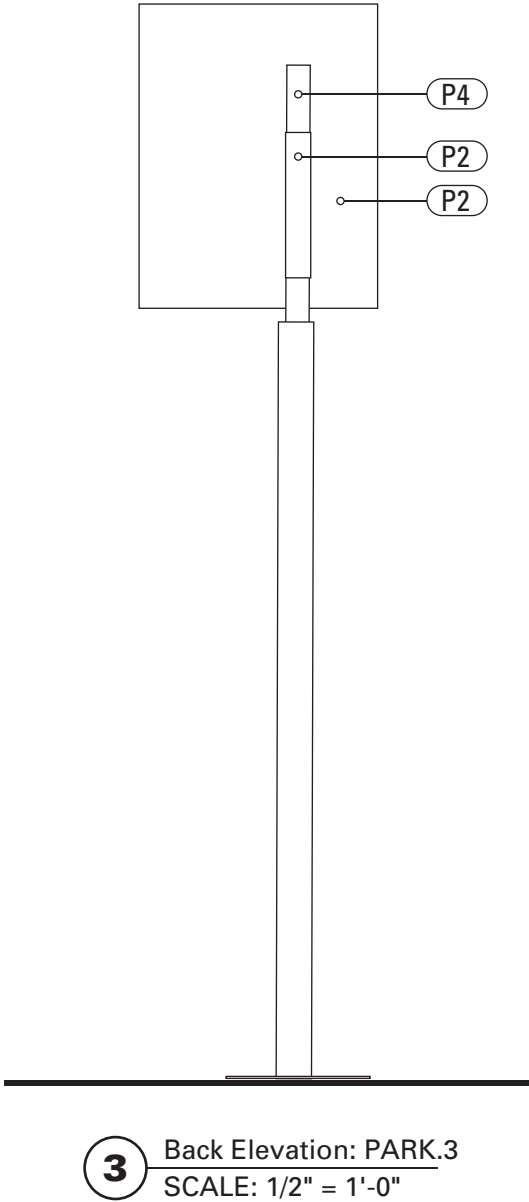
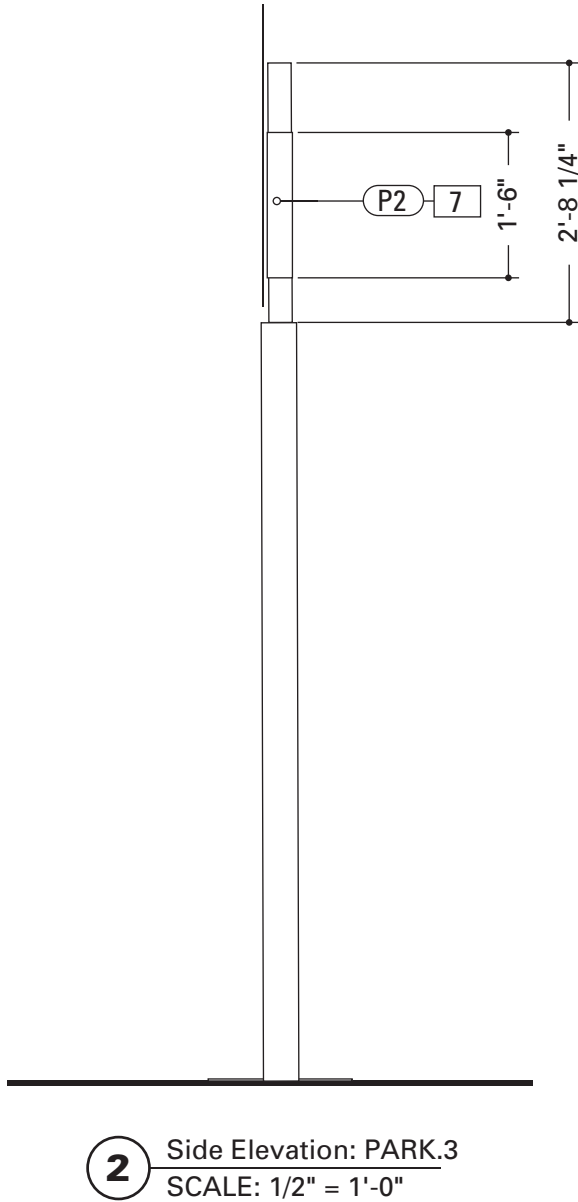
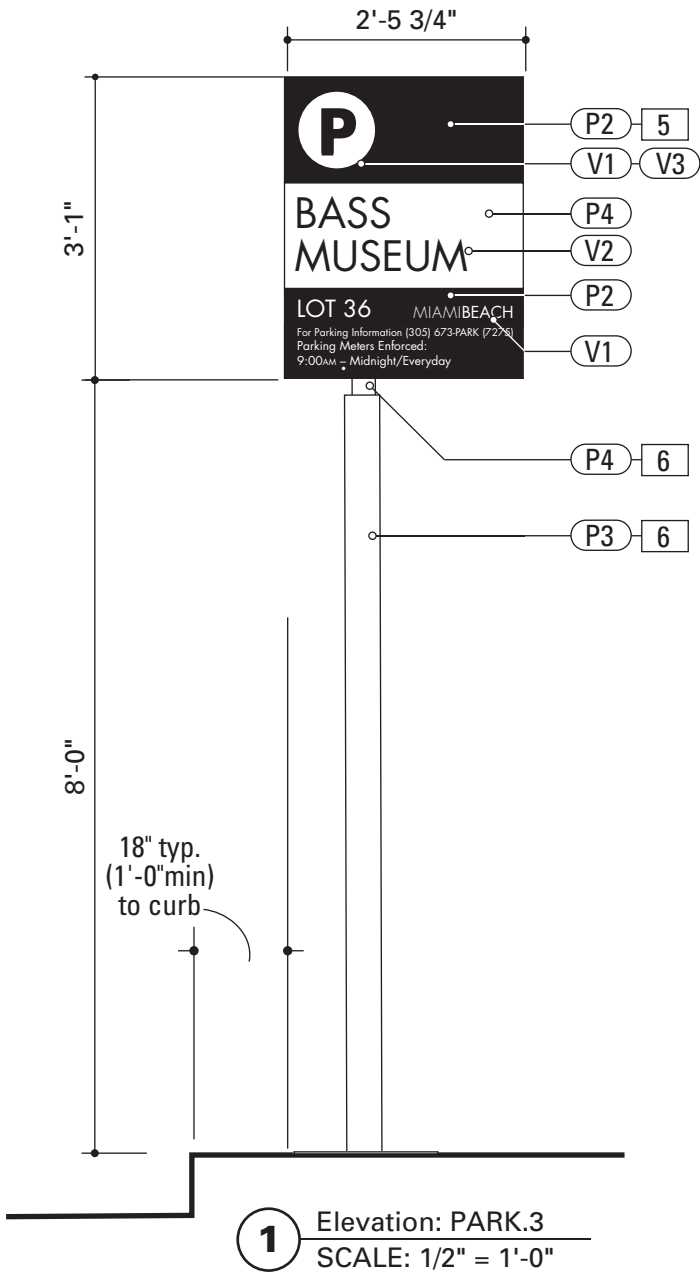
Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket

Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

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SPECIFICATIONS:

5. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Cut 90 Degree Edges
Fastener: Mech. Weld to Inner Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Color: Custom Screenprinted color
Material: Vinyl
Process: Electronically Cut / Applied

6. POST ASSEMBLY

Outer Post

Material: Aluminum
Size: 4" Dia.
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

Material: Aluminum
Size: 2 1/2" x 2 1/2"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

7. BRACKET ASSEMBLY

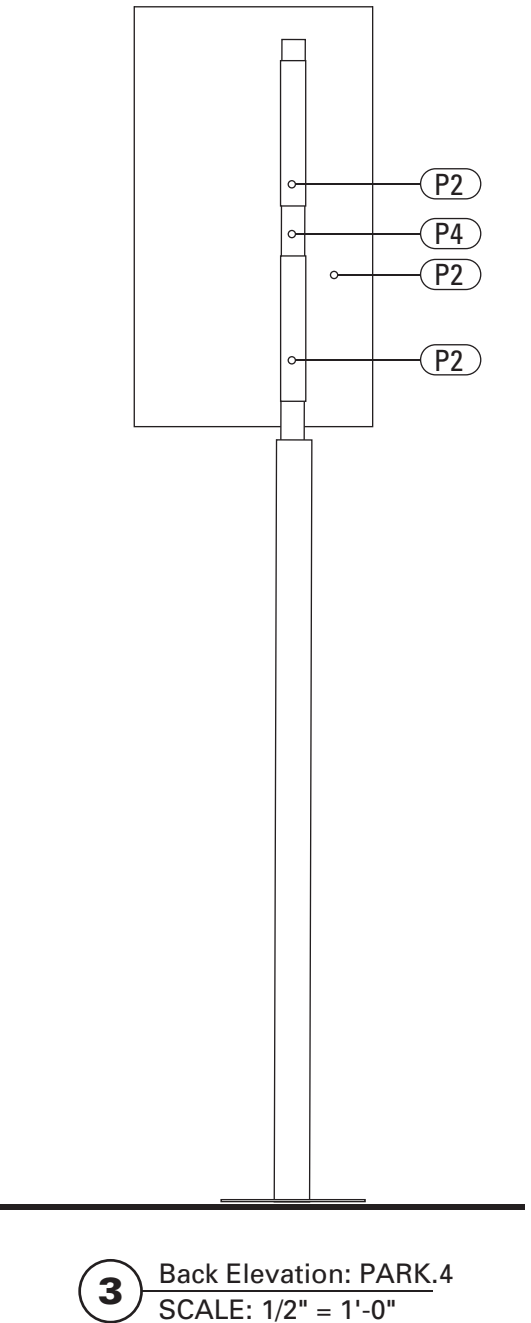
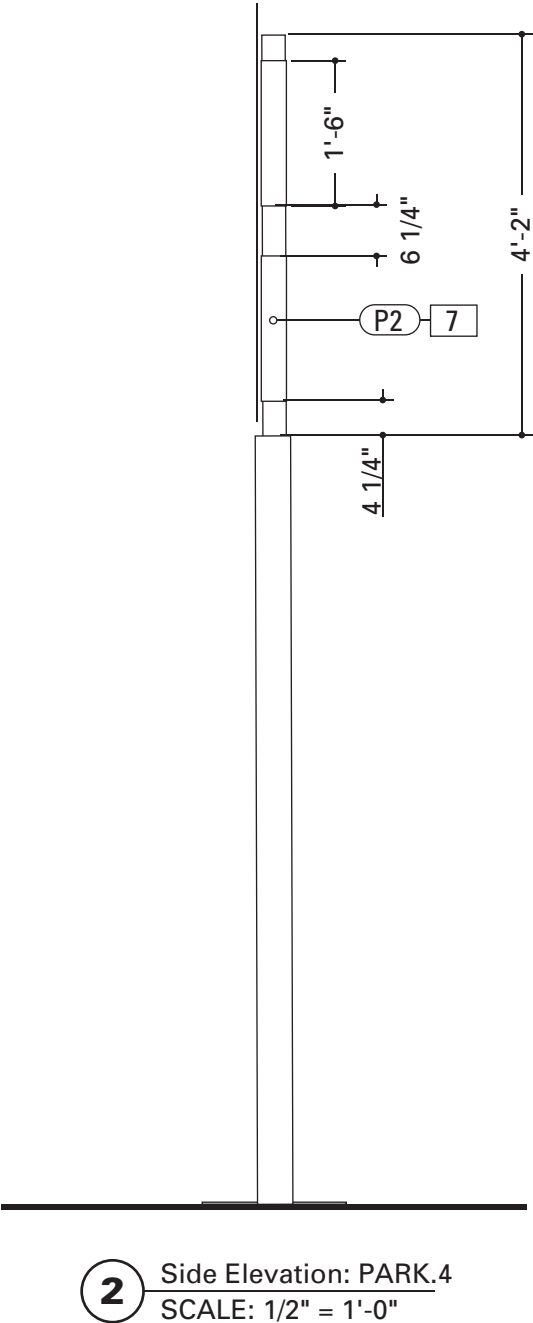
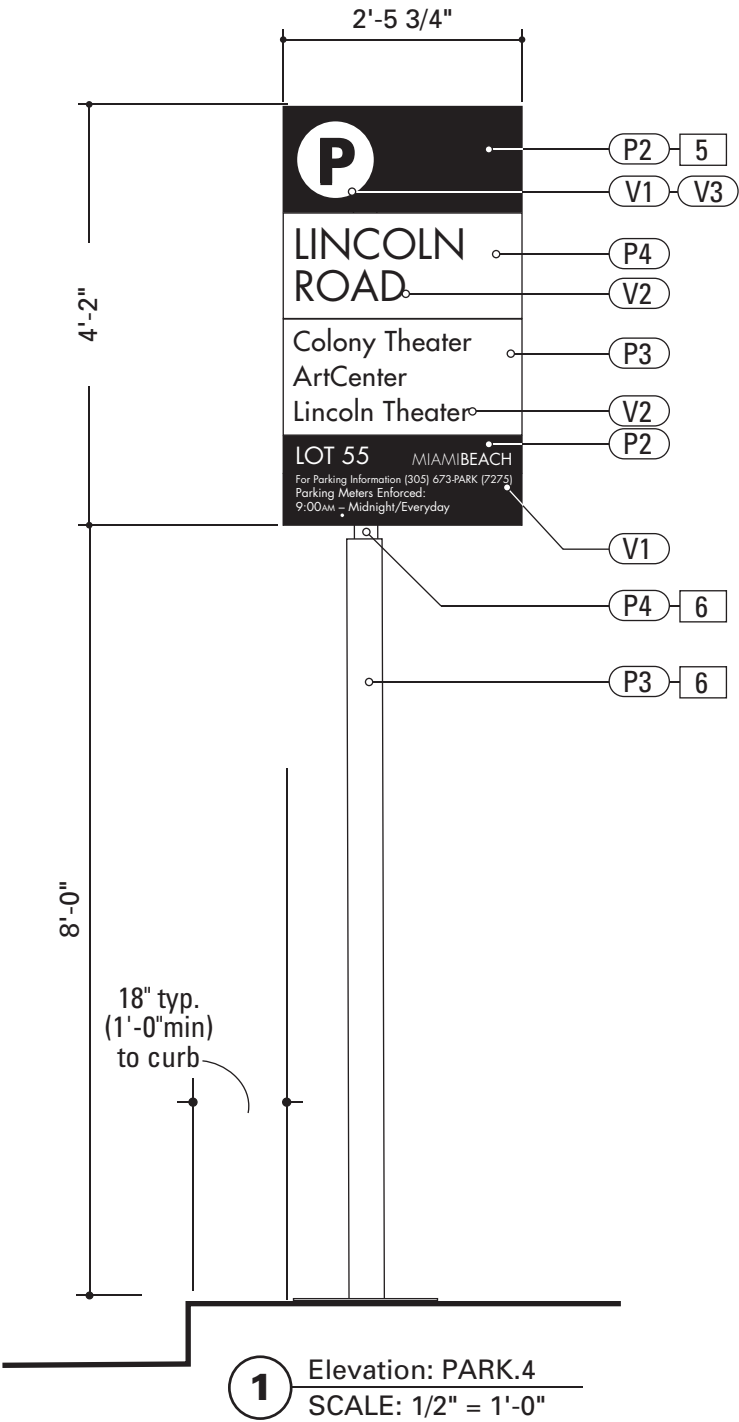
Inner Bracket

Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Outer Bracket

Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



SPECIFICATIONS:

5. SIGN PANEL

Panel

Material: 1/4" Thk. Alum.
Fabrication Process: Cut 90 Degree Edges
Fastener: Mech. Weld to Inner Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic

Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Color: Custom Screenprinted color
Material: Vinyl
Process: Electronically Cut / Applied

6. POST ASSEMBLY

Outer Post

Material: Aluminum
Size: 4" Dia.
Fabrication Process: Extruded / Cut / Capped
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post

Material: Aluminum
Size: 2 1/2" x 2 1/2"
Fabrication Process: Extruded / Cut / Capped
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

7. BRACKET ASSEMBLY

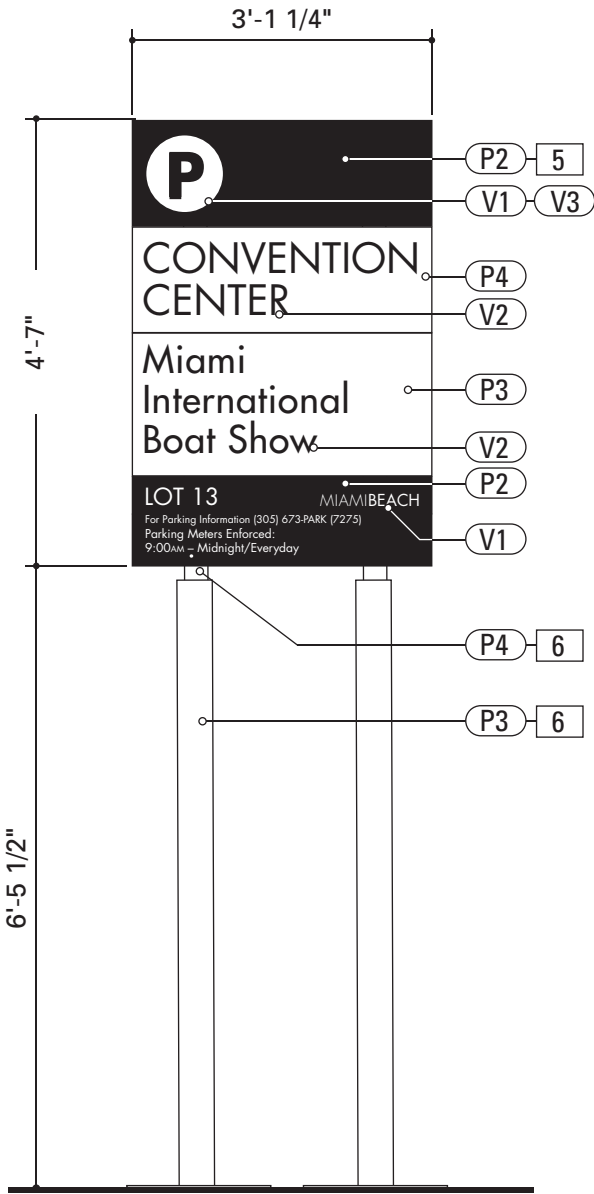
Inner Bracket

Material: 1/4" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Weld to Sign Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

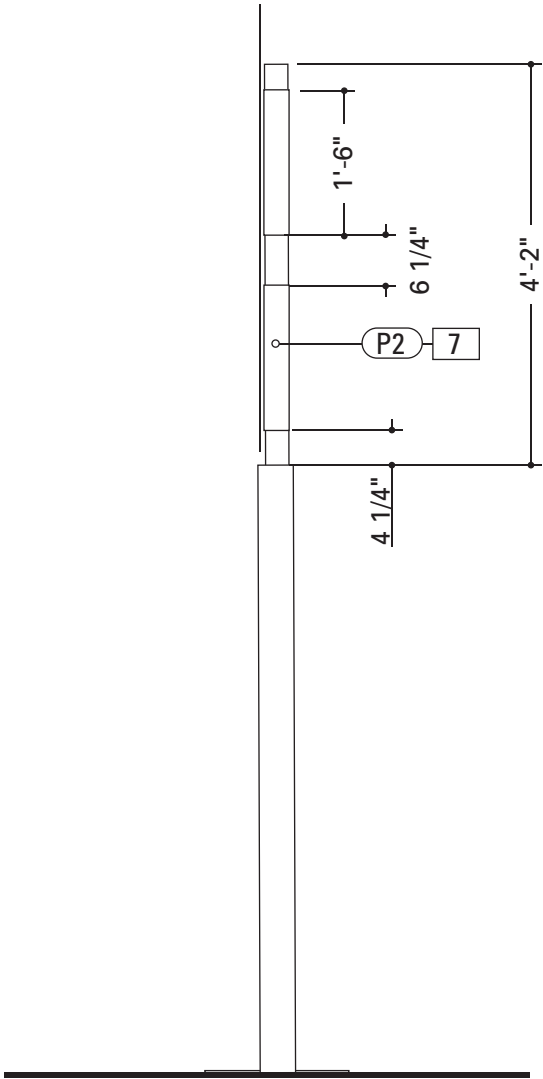
Outer Bracket

Material: 1/8" Thk. Alum.
Fabrication Process: Breakformed U Channel
Fastener: Mech. Fasten to Inner Bracket / Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

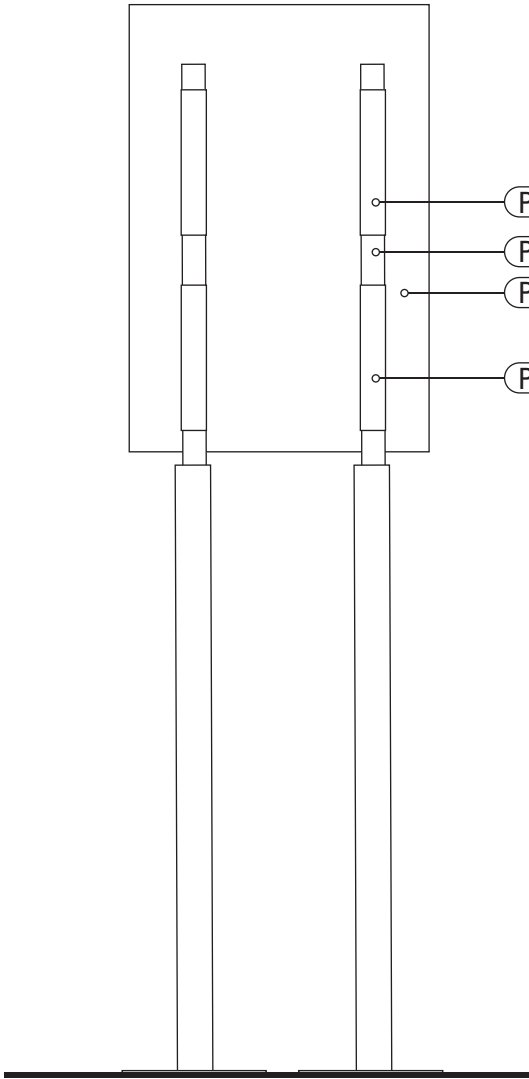
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



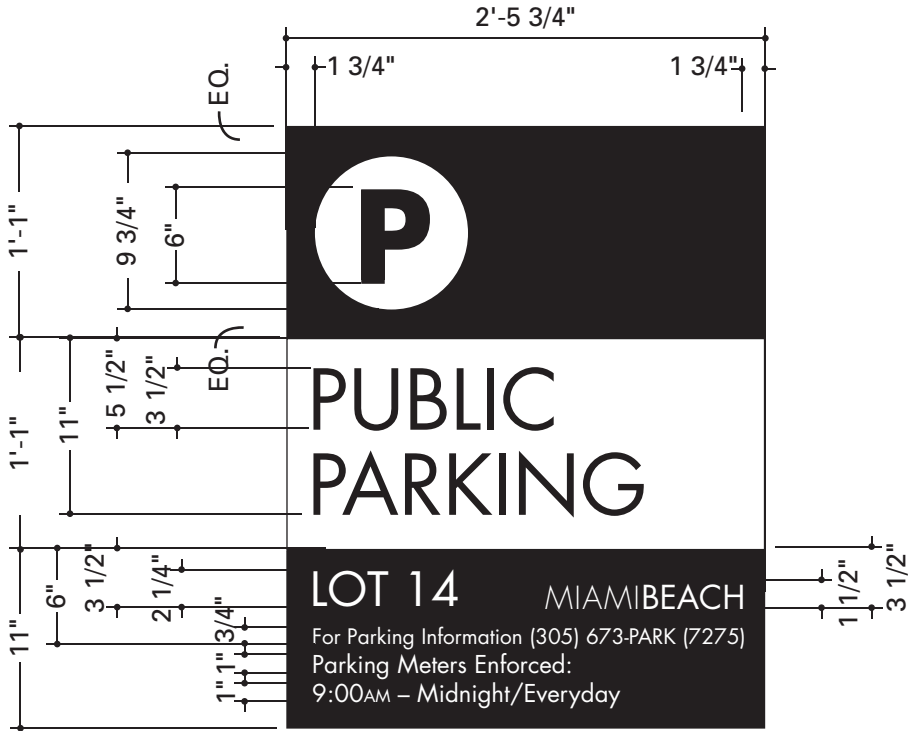
1 Elevation: PARK.5
SCALE: 1/2" = 1'-0"



2 Side Elevation: PARK.5
SCALE: 1/2" = 1'-0"



3 Back Elevation: PARK.5
SCALE: 1/2" = 1'-0"



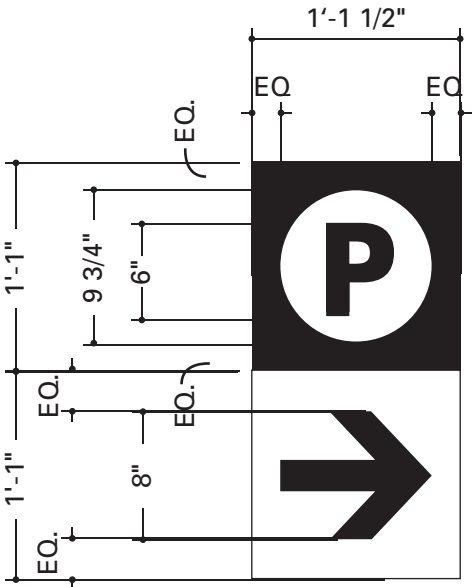
1 Graphic Layout : PARK.2
SCALE: 1" = 1'-0"



3 Graphic Layout : PARK.5
SCALE: 1" = 1'-0"



2 Graphic Layout : PARK.3 and PARK.4
SCALE: 1" = 1'-0"



4 Graphic Layout : PARK.1
SCALE: 1" = 1'-0"

SPECIFICATIONS:

10. SIGN PANEL

Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Cut / Wrapped
Fastener: Mech. Fasten/ Weld to Bracket Assembly
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

11. POST ASSEMBLY

Outer Post
Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post
Material: 1/8" Thk. Alum.
Size: 4 3/4" Dia.
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Under Coat: MPC: U Prime
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

12. BRACKET ASSEMBLY

Blade Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Cut
Fastener: Weld to Blade Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Post Bracket
Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length
Fastener: Weld to Blade Panel/ Mech. Fasten to Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

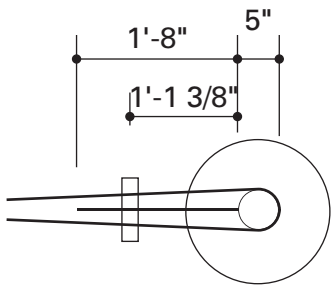
16. PIN ASSEMBLY

Material: Solid Alum.
Size: 2" Dia.
Fabrication Process: Routered/Cut/Capped
Fastener: Mech. Fasten to Blade Panel/Sign Panel
Edges: Smooth
Surface Process: Chrome Polish finish all exposed surfaces
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

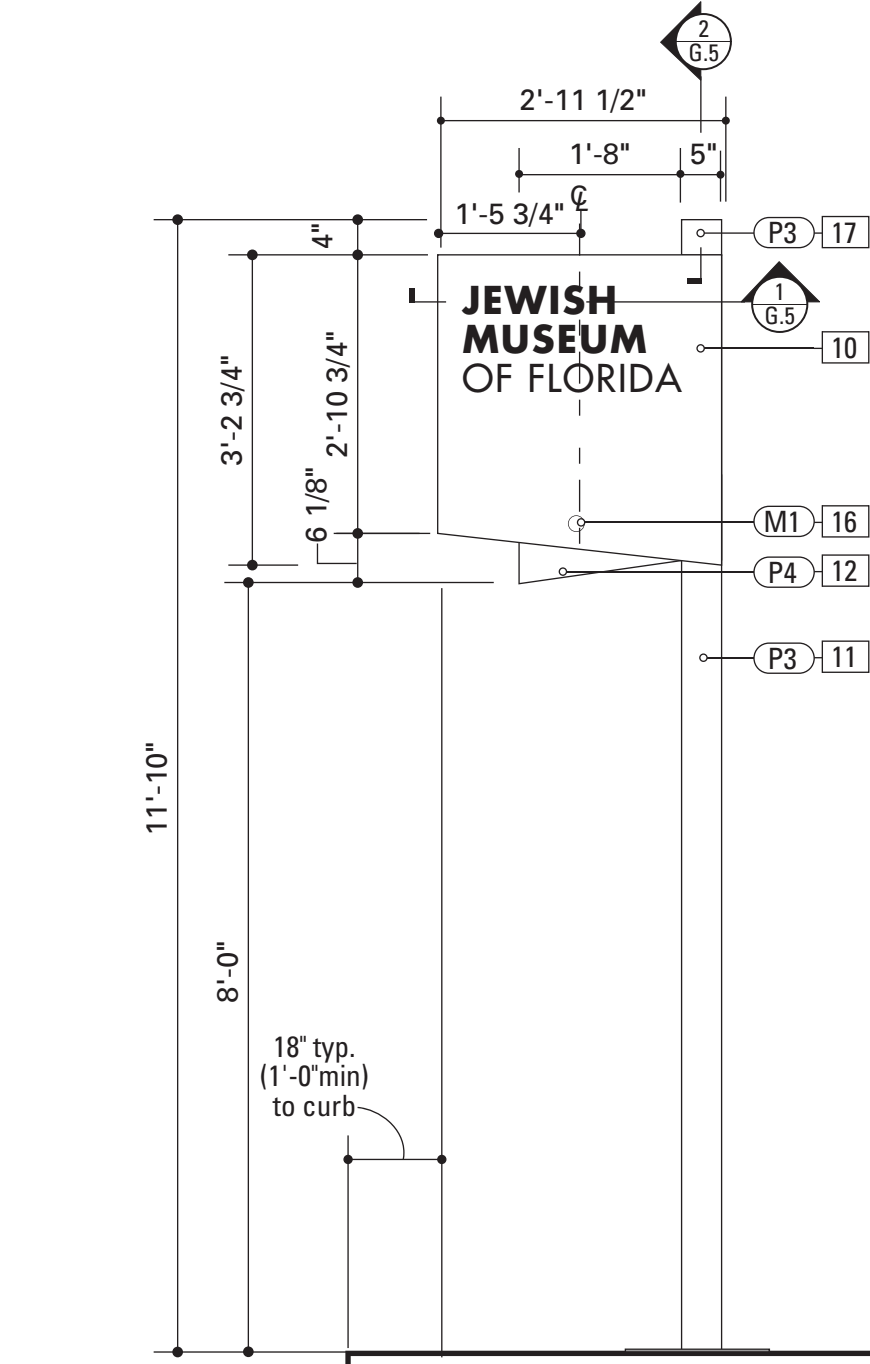
17. CAP

Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length/-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

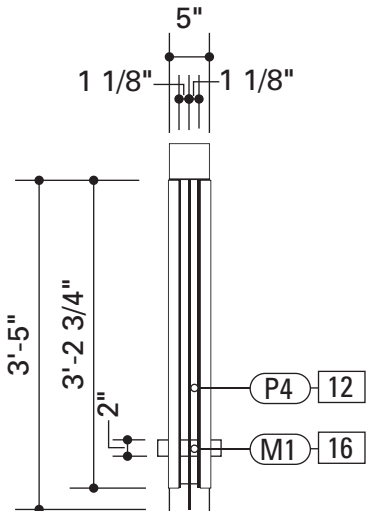
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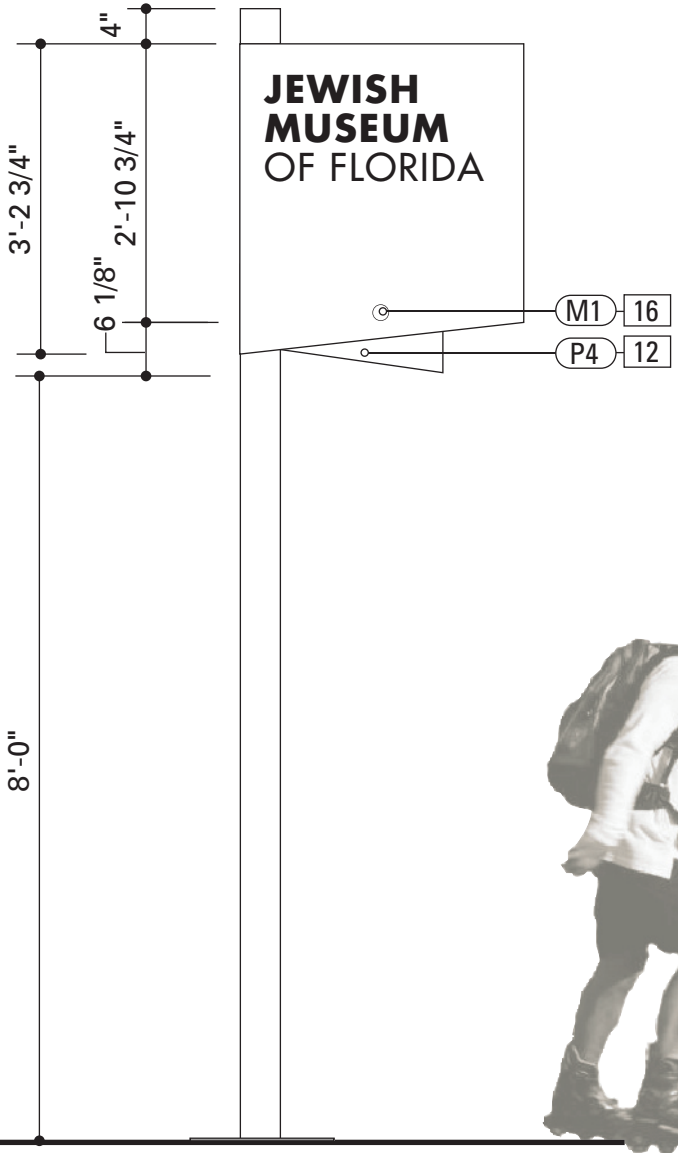
1 Top View: ID.1
SCALE: 1/2" = 1'-0"



2 Elevation: ID.1
SCALE: 1/2" = 1'-0"



3 Side View: ID.1
SCALE: 1/2" = 1'-0"



4 Back View: ID.1
SCALE: 1/2" = 1'-0"

GRAPHIC LAYOUT:

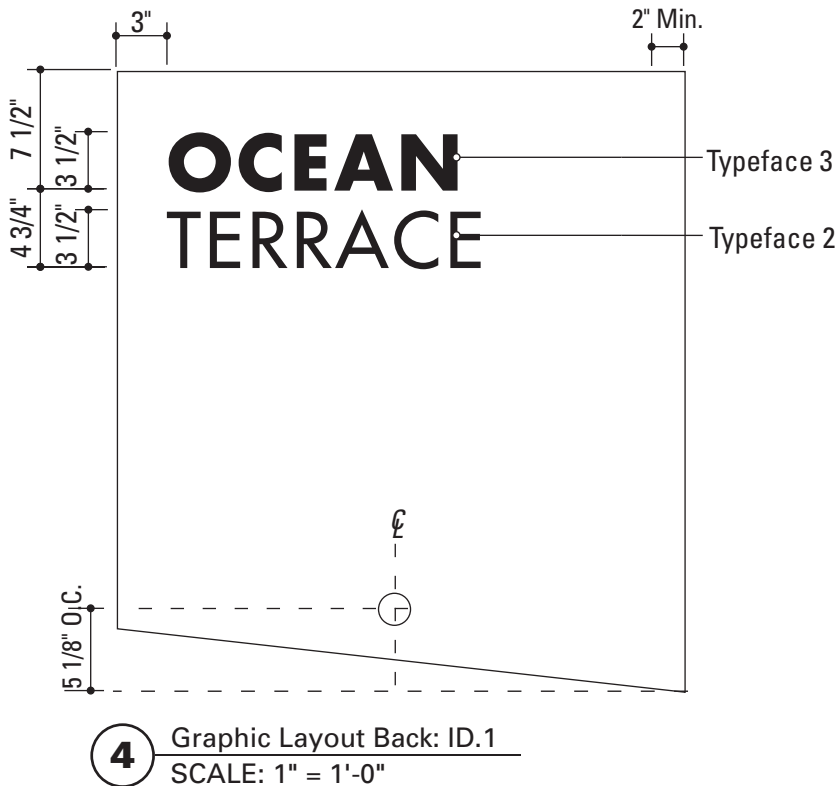
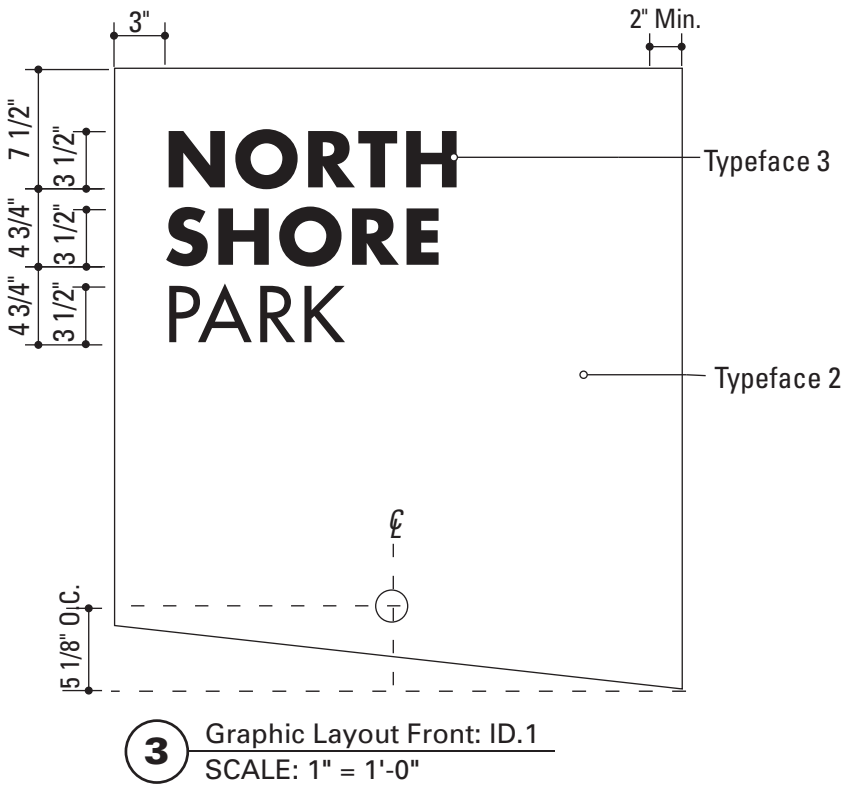
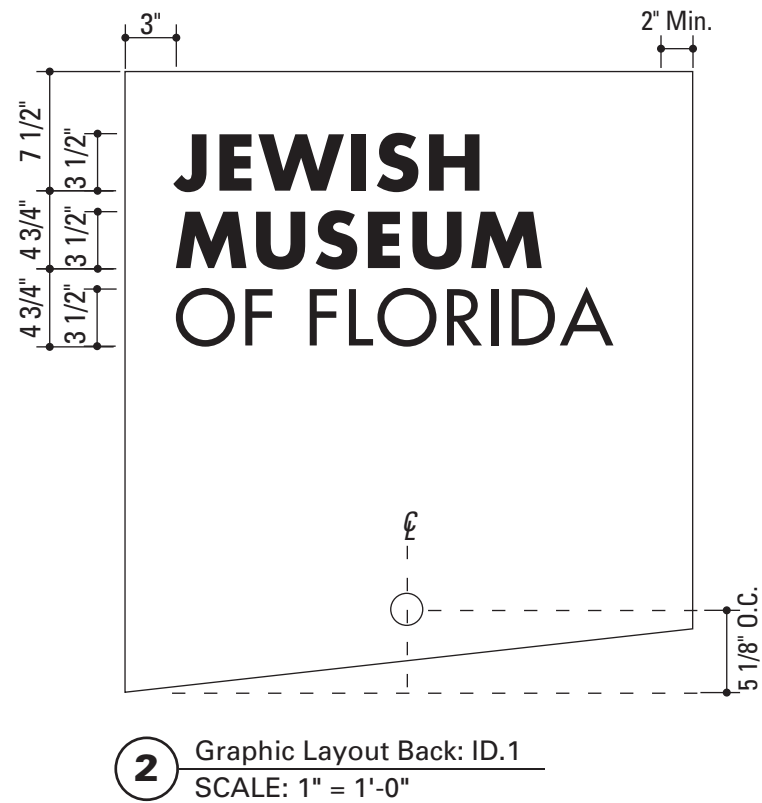
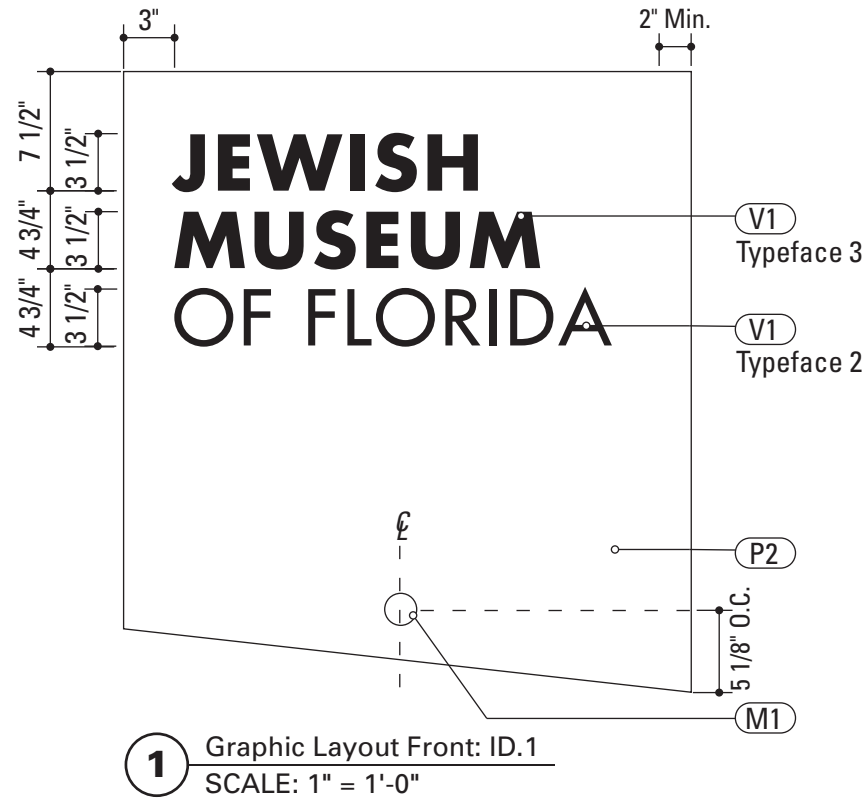
- 3 1/2" Copy Height
use 7 1/2" line space to first baseline,
use 4-3/4" line space to 2nd and 3rd baseline
- 3" margin from left edge of panel
and 2" minimum margin from right edge of panel
- Use TYPEFACE 3 for 1st two (2) lines of listing
IF listing is more than three (3) lines
3rd and 4th lines of copy, use TYPEFACE 2

For listings that are 1 or 2 lines,
1st line of copy Only, use TYPEFACE 3,
2nd line of copy use TYPEFACE 2

Maximum # of characters per line TYPEFACE 3:
approx. 9 (including spaces)

Maximum # of characters per line TYPEFACE 2:
approx. 11 (including spaces)

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



SPECIFICATIONS:

10. SIGN PANEL

Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Cut / Wrapped
Fastener: Mech. Fasten/ Weld to Bracket Assembly
Surface Process: Paint all exposed surfaces
Front: Paint Color P2 Blue
Back: Paint Color P4 Snow Cone Green
Edges: Paint Color P2 Blue
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

11. POST ASSEMBLY

Outer Post
Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post
Material: 1/8" Thk. Alum.
Size: 4 3/4" Dia.
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Under Coat: MPC: U Prime
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

13. BRACKET ASSEMBLY

Post Bracket
Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length
Fastener: Weld to Sign Panel/ Mech. Fasten to Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

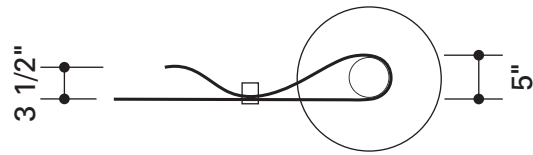
16. PIN ASSEMBLY

Material: Solid Alum.
Size: 2" Dia.
Fabrication Process: Routed/Cut/Capped
Fastener: Mech. Fasten to Blade Panel/Sign Panel
Edges: Smooth
Surface Process: Chrome Polish Finish all exposed surfaces
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

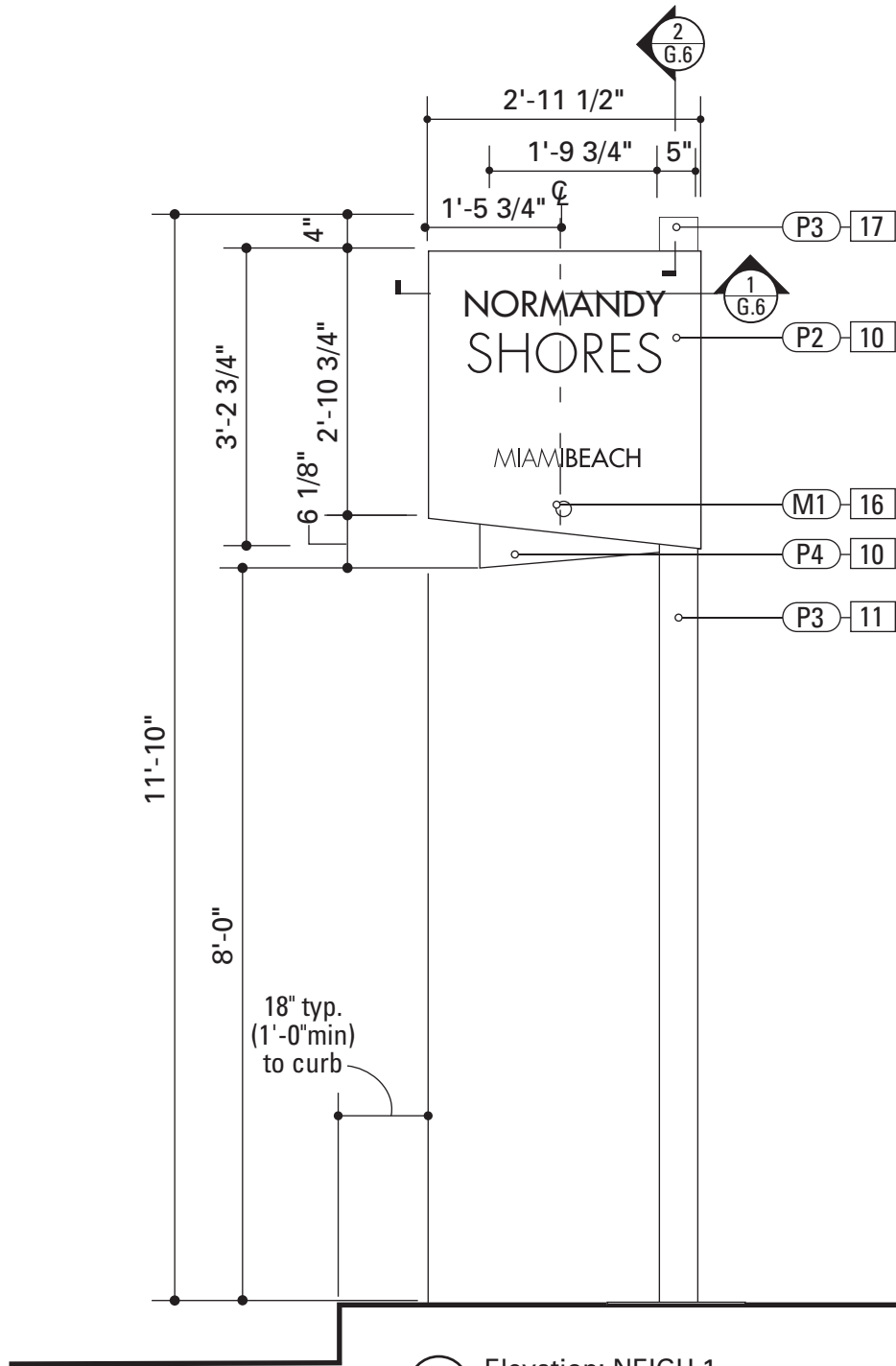
17. CAP

Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length/-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

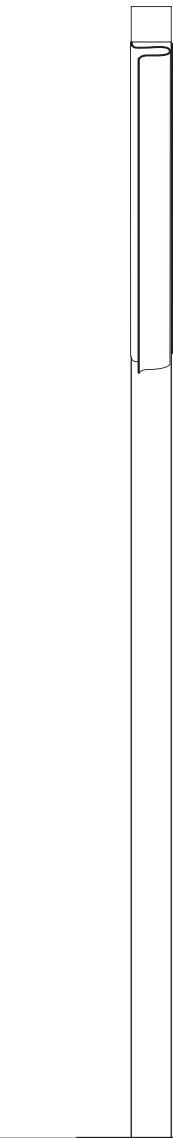
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



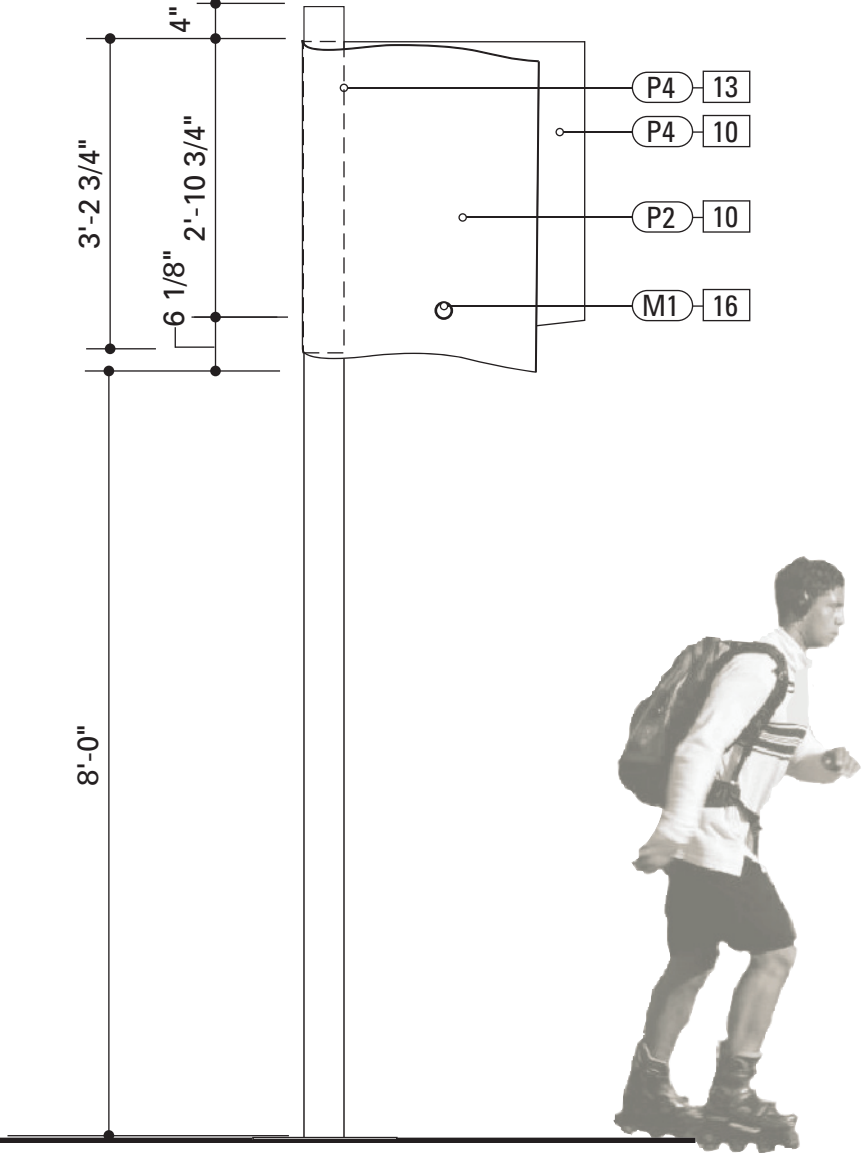
1 Top View: NEIGH.1
SCALE: 1/2" = 1'-0"



2 Elevation: NEIGH.1
SCALE: 1/2" = 1'-0"



3 Side View: NEIGH.1
SCALE: 1/2" = 1'-0"

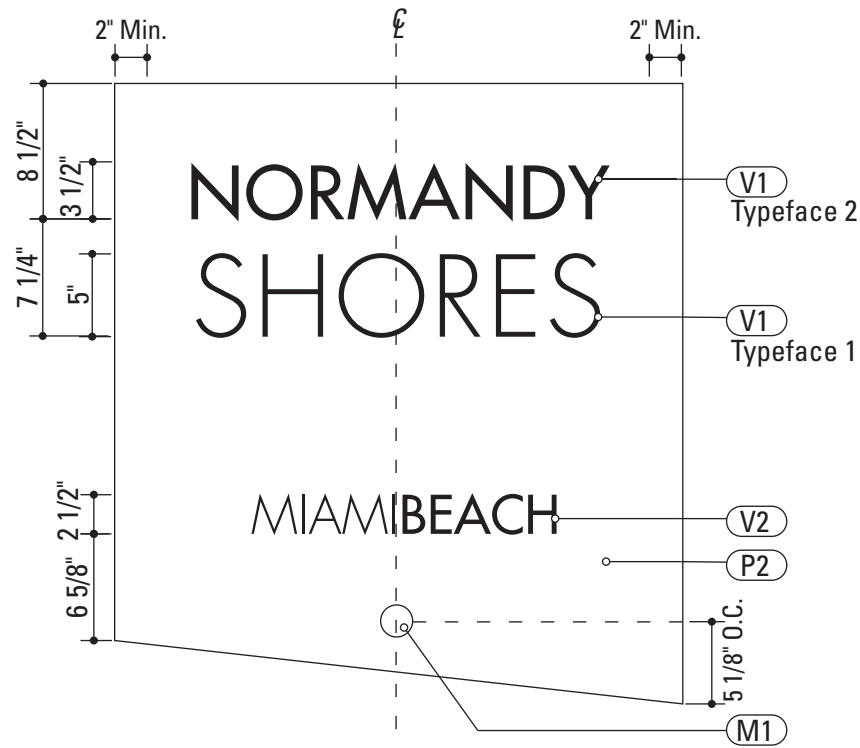


4 Back View: NEIGH.1
SCALE: 1/2" = 1'-0"

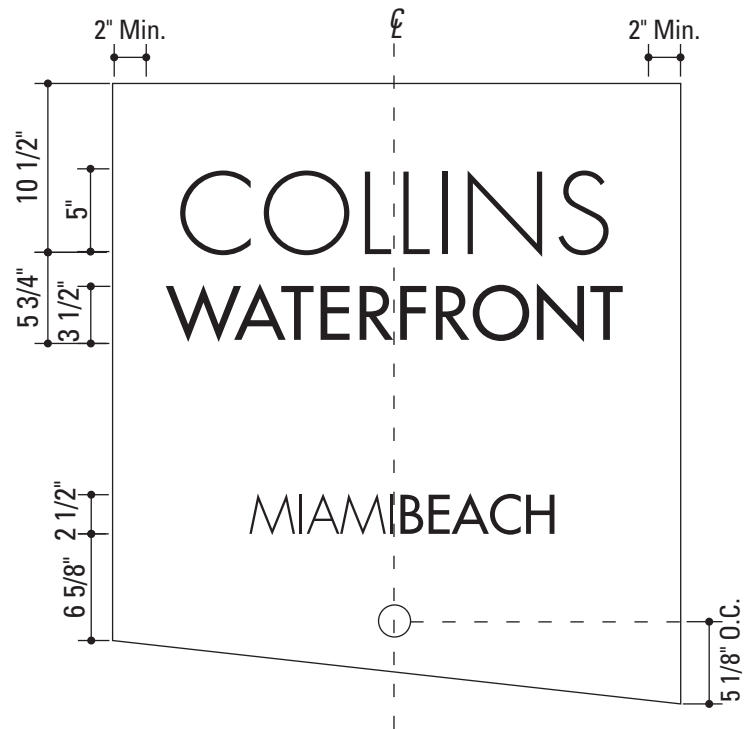
GRAPHIC LAYOUT:

- To determine size of copy height:
- Maximum # of characters per line for each word is 6-8 characters that fall within the minimum left and right margins on sign panel
Use 5" copy height
 - If word does not fall within the minimum margins on sign panel, use 3 1/2" copy height
- COPY SPACING
- 5" Copy Height, center on panel, use TYPEFACE 1
use 10 1/2" line space to baseline when first line
use 7 1/4" line space to baseline when 2nd and 3rd lines
- Maximum # of characters per line TYPEFACE 1:
approx. 8 (including spaces)
- 3 1/2" Copy Height, center on panel, use TYPEFACE 2
use 7 1/4" line space to baseline when first line
use 5 3/4" line space to baseline when 2nd and 3rd lines
- Maximum # of characters per line TYPEFACE 2:
approx. 12 (including spaces)
- 2" minimum left and right margins from edge of panel
- LOGO:
- 2 1/2" copy height, center on panel
6 5/8" line space from bottom left hand corner

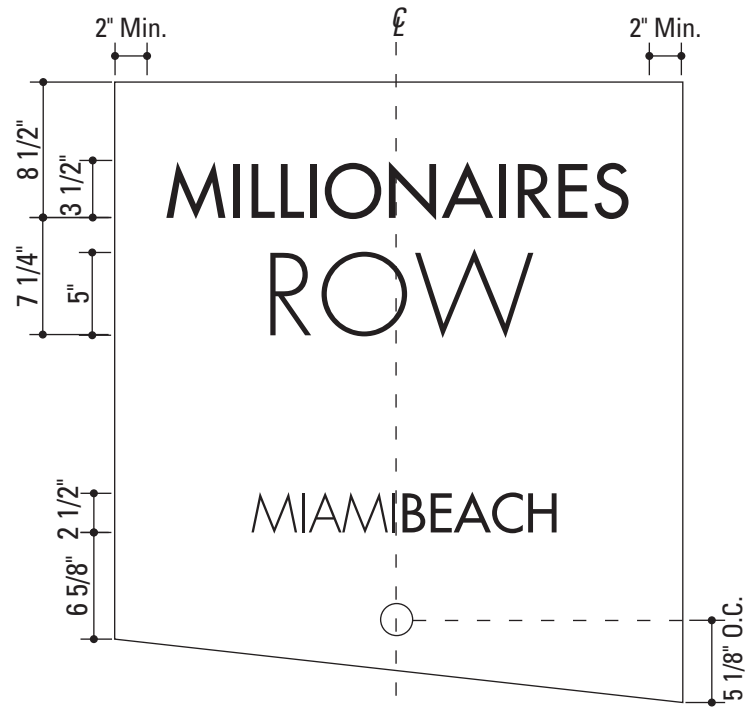
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



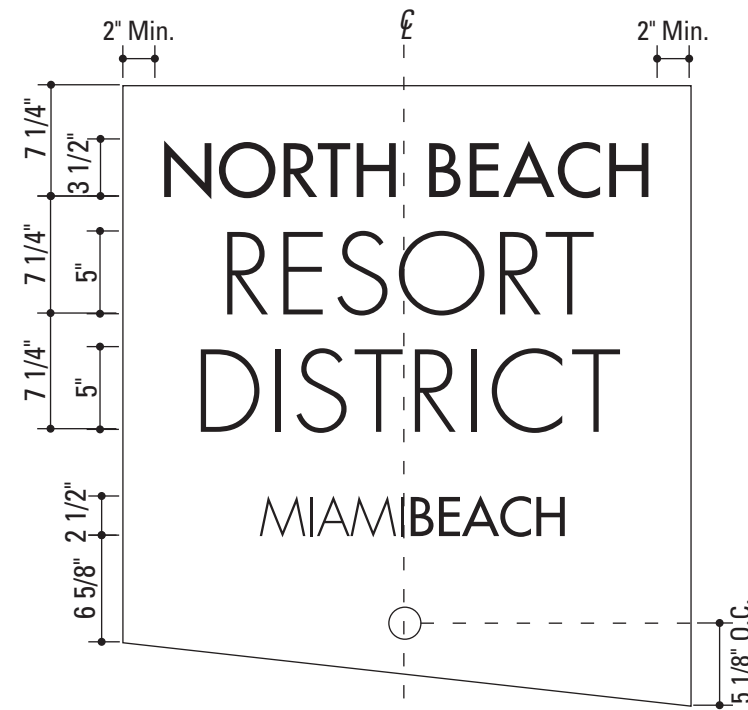
1 Graphic Layout: NEIGH.1
SCALE: 1" = 1'-0"



2 Graphic Layout: NEIGH.1
SCALE: 1" = 1'-0"



3 Graphic Layout: NEIGH.1
SCALE: 1" = 1'-0"



4 Graphic Layout: NEIGH.1
SCALE: 1" = 1'-0"

SPECIFICATIONS:

8. SINGLE 36" BANNER MOUNTING SET

Bracket
Material: Aluminum
Qty: (1)
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Strapping
Material: Stainless Steel with threaded tightening assembly
Gauge: 24
Mounting: Adjustable for utility and street-poles (round or square up to 10" dia.)

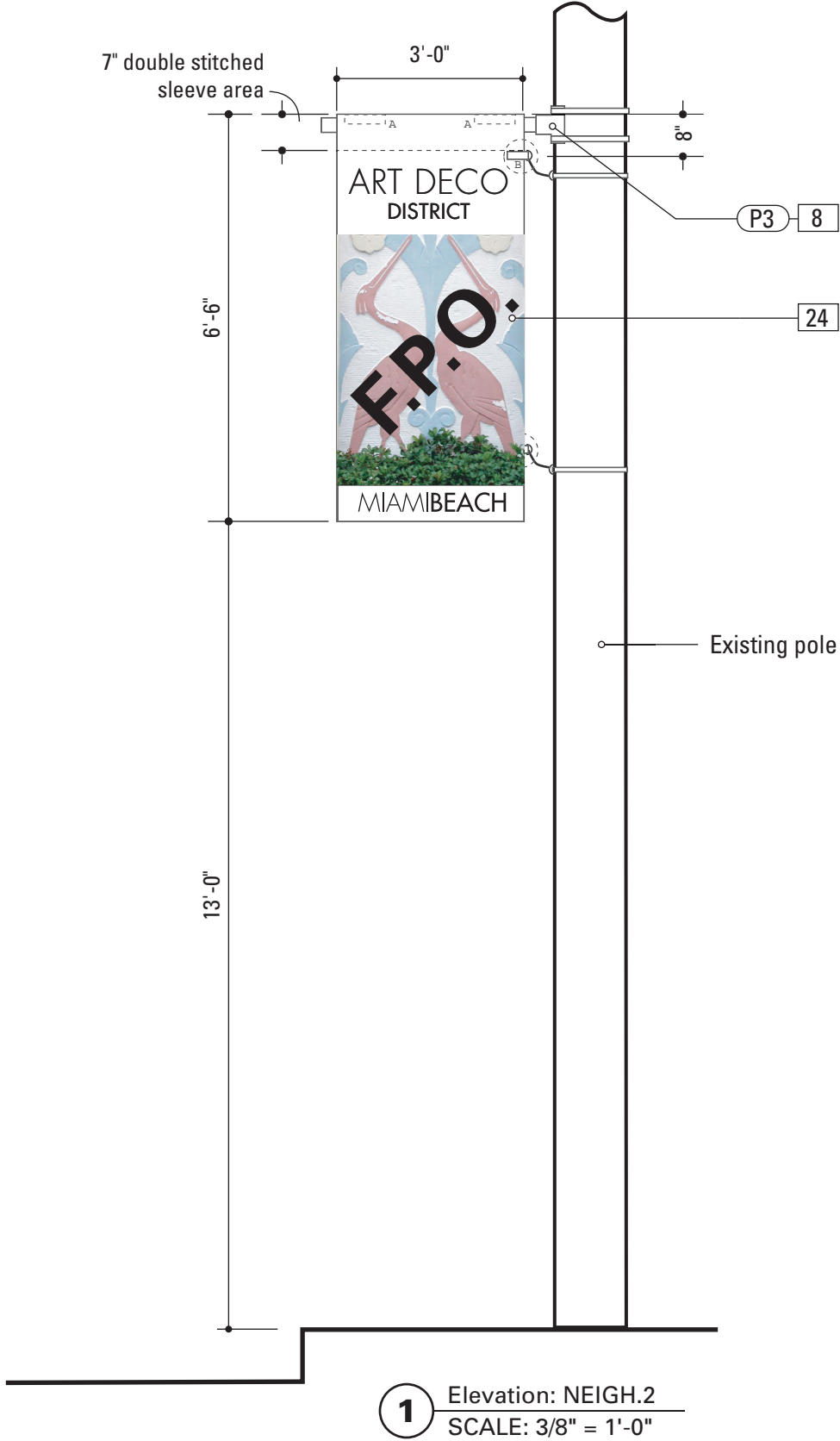
Arms:
Material: Aluminum
Process: Capped
Qty: (1)
Length: 40"
Surface Process:Paint all exposed surface, same as bracket
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: Reinforced nylon web tab with a welded 1/12" D-ring at the top and a welded 2" D-ring at bottom along the same edge. The top D-ring attached to strap mounted with link chain to ensure connection in case velcro becomes loose.

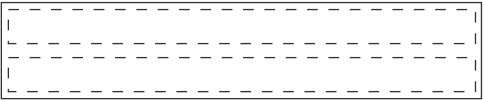
24. BANNER

Material: Nylon
Qty: (1) Double Faced
Printing Process: Dye Sublimation. No Vinyl/PVC or Sunbrella
Liner: Inner / Opaque

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.

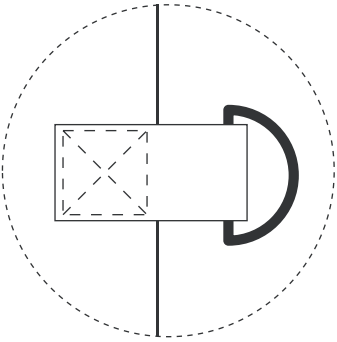


Install two 5"x1" velcro tabs-the female/ soft/loop part at the inside top of the banner sleeve, 1" from both openings.



Attach velcro with heavy-duty nylon or polyester thread using "box" stitching pattern, as illustrated above.

2 Detail A-Velcro Tabs: NEIGH.2
SCALE: N/A



Note: Webbing to attach D-Ring to banner should be sewn using heavy-duty nylon or polyester thread in the pattern shown above and reinforced with a #2 aluminum grommet. Cotton thread is not acceptable.

3 Detail B-D-Ring Detail: NEIGH.2
SCALE: N/A

GRAPHIC LAYOUT:

DEFAULT SIZE

- On a 4'-7 1/2" height art space provided
You may use up to two (2) lines for copy:
1 line of copy to be 5" Copy Height, center on panel
Maximum # of characters per line:
approx. 8 (including spaces)
1 line of copy to be 3" Copy Height, center on panel
Maximum # of characters per line:
approx. 12 (including spaces)
- Copy must be centered vertically and visually centered horizontally on the panels. Shortest messages to be assigned the larger height copy.

ADDITIONAL SIZE

- On a 4'-1" height art space provided
You may use up to three (3) lines for copy:
2 lines of copy to be 5" Copy Height, center on panel
Maximum # of characters per line:
approx. 8 (including spaces)
1 line of copy to be 3" Copy Height, center on panel
Maximum # of characters per line:
approx. 12 (including spaces)

- Copy must be centered vertically and visually centered horizontally on the panels. Shortest messages to be assigned the larger height copy.

- 2" minimum left and right margins from edge of panel

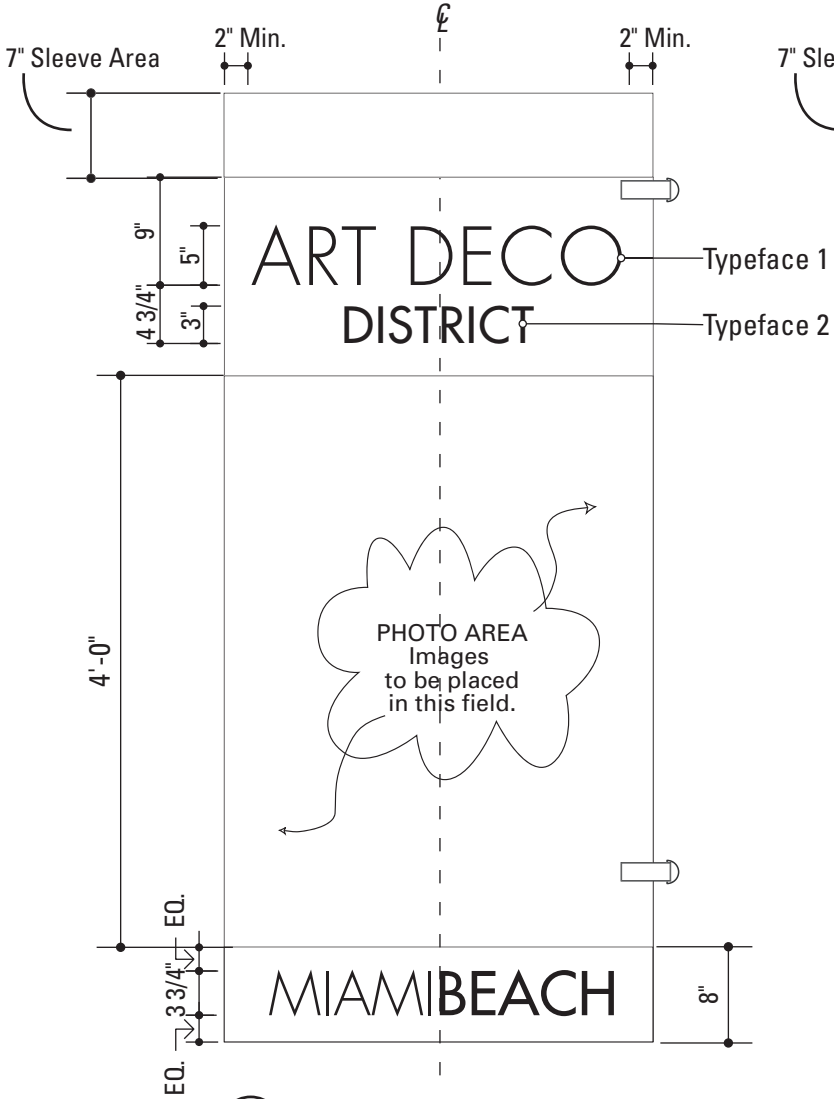
LOGO:

- 3 3/4" copy height, center on panel
2 1/4" line space from bottom

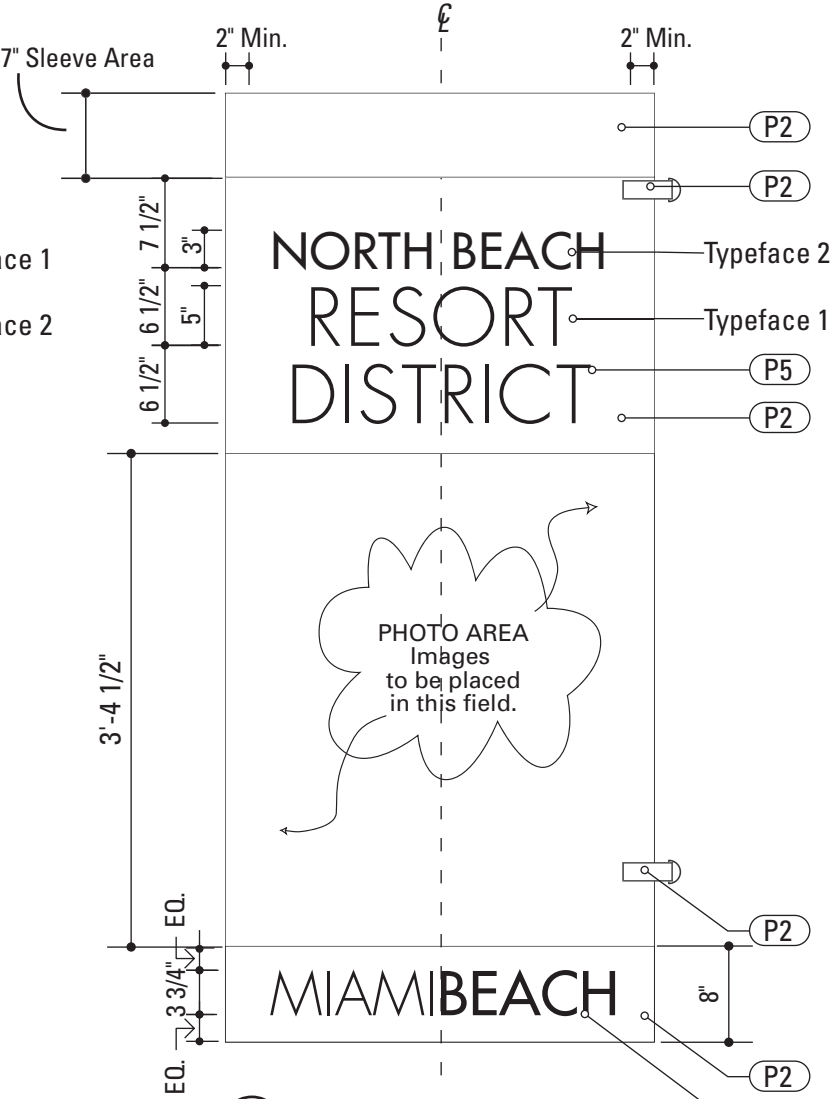
ARTWORK:

- Artwork images to be approved/provided by client
Output of images must be in focus and correctly reproduced in color and clarity
- Visually complex, "busy" or blurred content and photographs with numerous small components should be avoided. Photography taken close up with subject matter that is clearly identifiable often works best. Photos that have too much detail and pattern or that lack contrast and definition obscure immediate recognition and detract from the intended message. Subject matter that is appropriate in a smaller format does not translate well to the larger format of a banner.

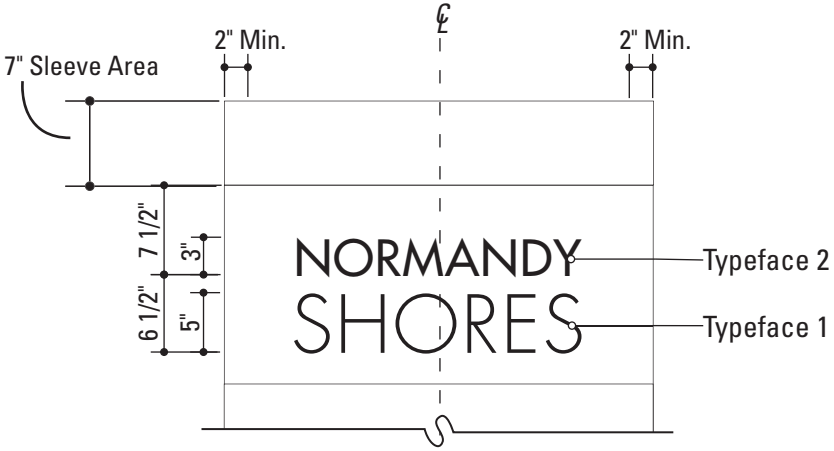
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



1 Graphic Layout: NEIGH.3
SCALE: 3/4" = 1'-0"



3 Graphic Layout: NEIGH.3
SCALE: 3/4" = 1'-0"



2 Graphic Layout: NEIGH.3
SCALE: 3/4" = 1'-0"

Note: The Printing Process is Dye Sublimation. The solid color fields are to match the paint colors specified on this page.

SPECIFICATIONS:

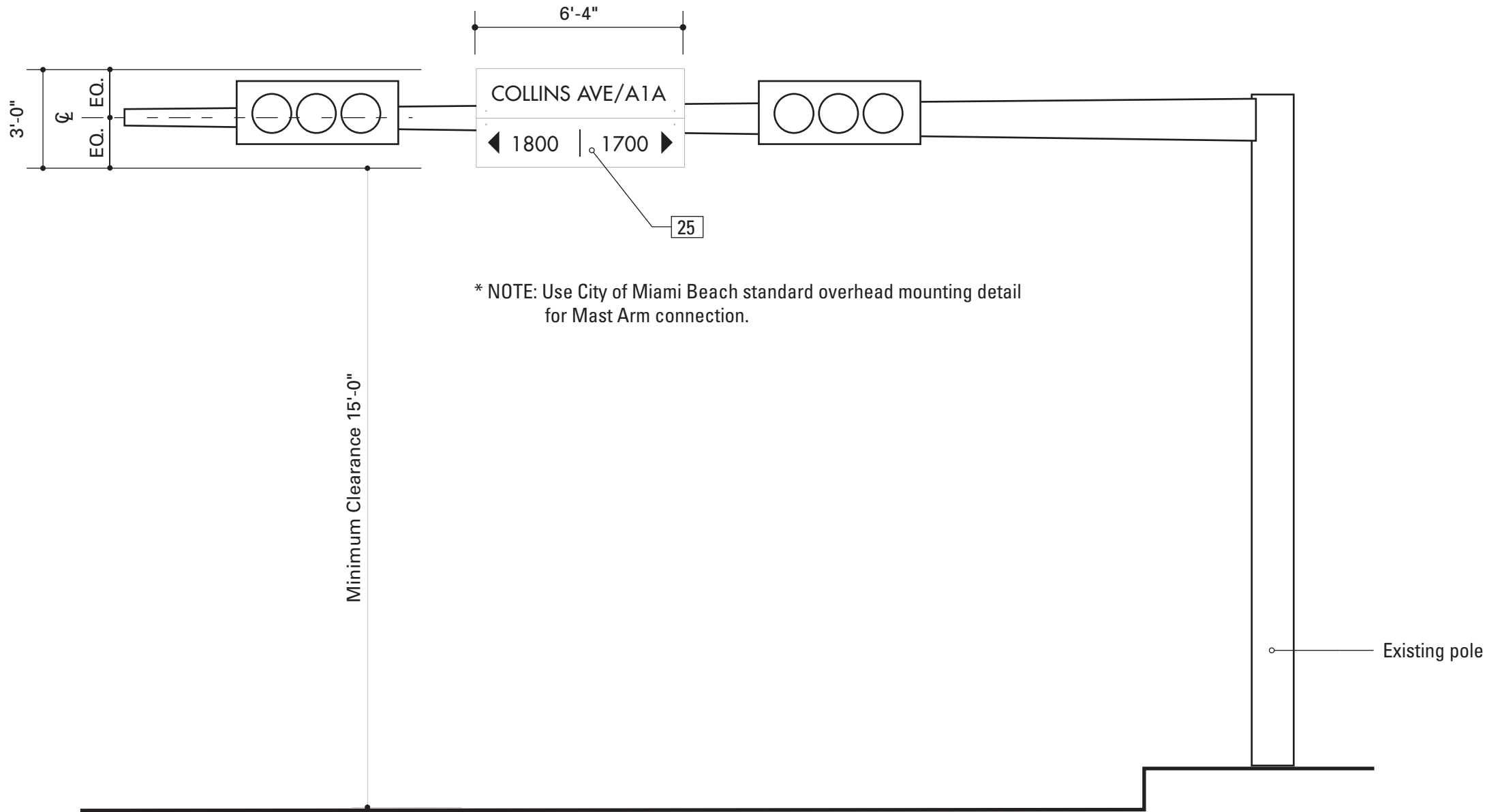
25. SIGN PANEL

Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Router Cut
Edges: Smooth
Corners: Eased
Fastener: Use method approved by the City of Miami Beach
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Copy Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

Background
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Applied

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



1 Elevation: STREET.1
SCALE: 1/4" = 1'-0"

GRAPHIC LAYOUT:

Layout and Graphic Appearance must not deviate from from original intent as shown.

- 5 5/8" Copy Height, TYPEFACE 2
- 10" height of rule line, centered on panel
- 8 5/8" Arrow Symbols Left and Right
- Maximum # of characters for Street name, including spaces: 15
- Maximum # of numbers for each left and right number designation: 4

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



SECTION F: **DESIGN DRAWINGS**
PEDESTRIAN SIGN TYPES



SPECIFICATIONS:

28. CAP
Material: Aluminum
Fabrication Process: Routed Cut/ Weld/Fabricated
Edges: Smooth
Corners: Eased
Fastener: Mech. Fasten to Posts
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

29. PANEL POST
Manufacturer: SignComp Product: Series 3 Part#: 1210
Material: Extruded Aluminum
Size: 3 1/4" Radius Post
Fastener: Mech. Fasten to Cap and Panel
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

30. COPY BAR
Manufacturer: SignComp Product: Series CB
Part#: 1420(2"), 1430(3"), 1450(6")
Material: Extruded Aluminum
Size: 2"x2", 2"x3", 2"x 6" x 2'-2"long
Fastener: Mech. Fasten to Panel Post with Sign Comp Series CB #1410
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Copy Graphic
Product: 3M Scotchcal Opaque
Material: Vinyl
Process: Electronically Cut / Applied
Finish: Matte
Color: White

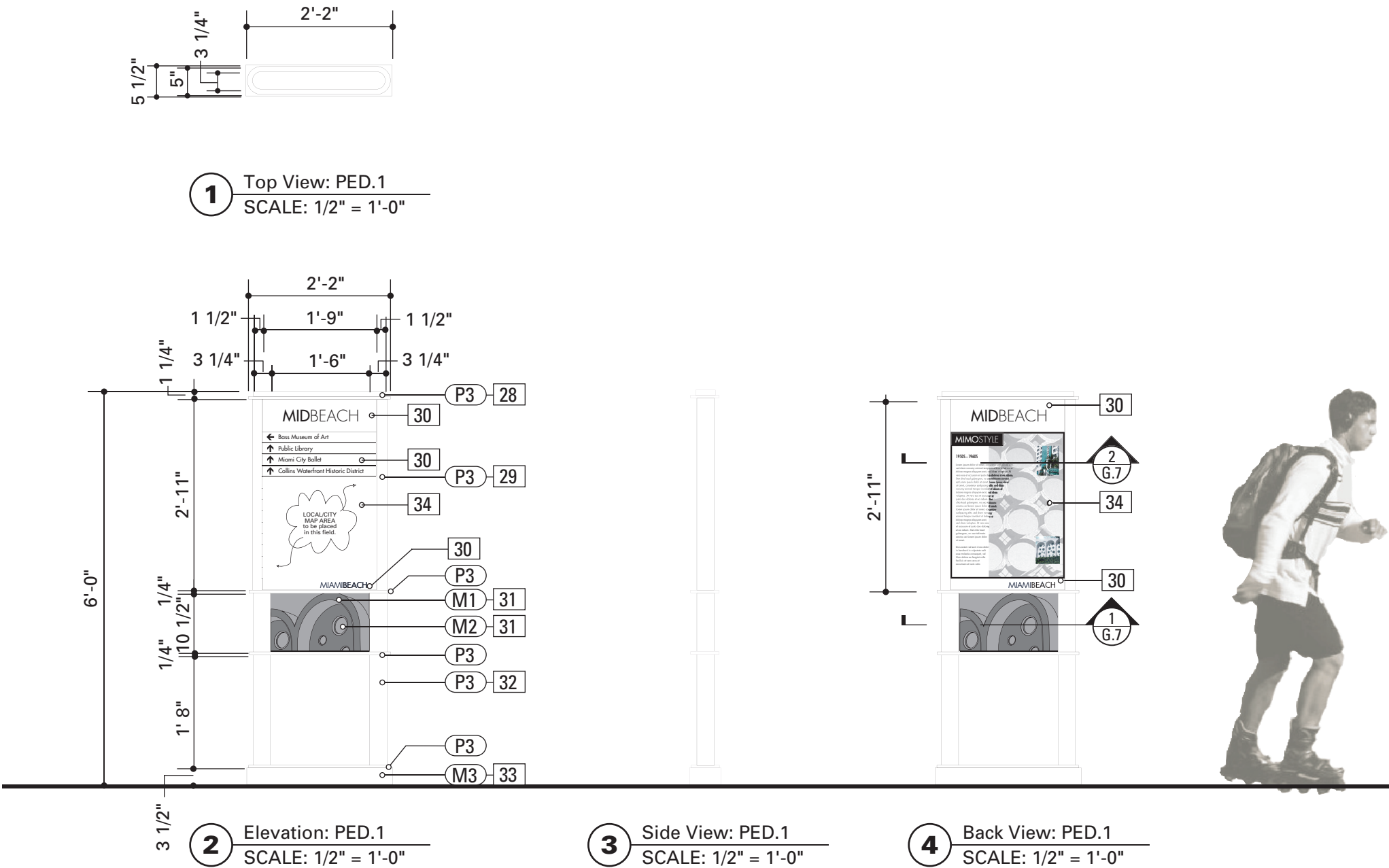
31. GRAPHIC PANEL
Material: 1/4" thick Aluminum
Sides: Double
Fabrication Process: Chemically Deep Etched Depth: 1/16"
Fastener: Mech. Fasten to Upright Post with concealed fastners.
Raised Finish: Polished
Recessed Finish: Matte
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: Dark Grey area of graphic is to be Raised and Polished.
Light Grey area of graphic is to be Recessed and Matte

32. UPRIGHT POST
Manufacturer: SignComp Product: Series 1 Part#: 1007
Material: Extruded Aluminum
Size: 3 1/4" Round Post
Fastener: Mech. Fasten to Base and Graphic Panel
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

33. CONCRETE BASE
Material: Concrete
Process: PreCast
Edges: 1/2" Radius top
Finish: Smooth
Color: Match Miami Beach Red Concrete Mix Code No.1300248
Approval No. MB05
Reference Footer Section H for Mounting and Footer Details

34. INTERPRETIVE / MAP PANEL
Manufacturer: Aluimage - (336) 314-4207
Material: 1/8" Thick Aluminum
Sides: Single
Fabrication Process: Embedded Inks into Aluminum
Graphic Process: CMYK inks 400DPI
Fastener: Mech. Fasten to Panel Post with concealed fastners.
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



SPECIFICATIONS:

28. CAP

Material: Aluminum
Fabrication Process: Routed Cut/ Weld/Fabricated
Edges: Smooth
Corners: Eased
Fastener: Mech. Fasten to Posts
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

29. PANEL POST

Manufacturer: SignComp Product: Series 3 Part#: 1210
Material: Extruded Aluminum
Size: 3 1/4" Radius Post
Fastener: Mech. Fasten to Cap and Panel
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

30. COPY BAR

Manufacturer: SignComp Product: Series CB
Part#: 1420(2"), 1430(3"), 1450(6")
Material: Extruded Aluminum
Size: 2"x2", 2"x3", 2"x 6" x 2'-2"long
Fastener: Mech. Fasten to Panel Post with Sign Comp Series CB #1410
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Copy Graphic

Product: 3M Scotchcal Opaque
Material: Vinyl
Process: Electronically Cut / Applied
Finish: Matte
Color: White

31. GRAPHIC PANEL

Material: 1/4" thick Aluminum
Sides: Double
Fabrication Process: Chemically Deep Etched Depth: 1/16"
Fastener: Mech. Fasten to Upright Post with concealed fastners.
Raised Finish: Polished
Recessed Finish: Matte
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: Dark Grey area of graphic is to be Raised and Polished.
Light Grey area of graphic is to be Recessed and Matte

32. UPRIGHT POST

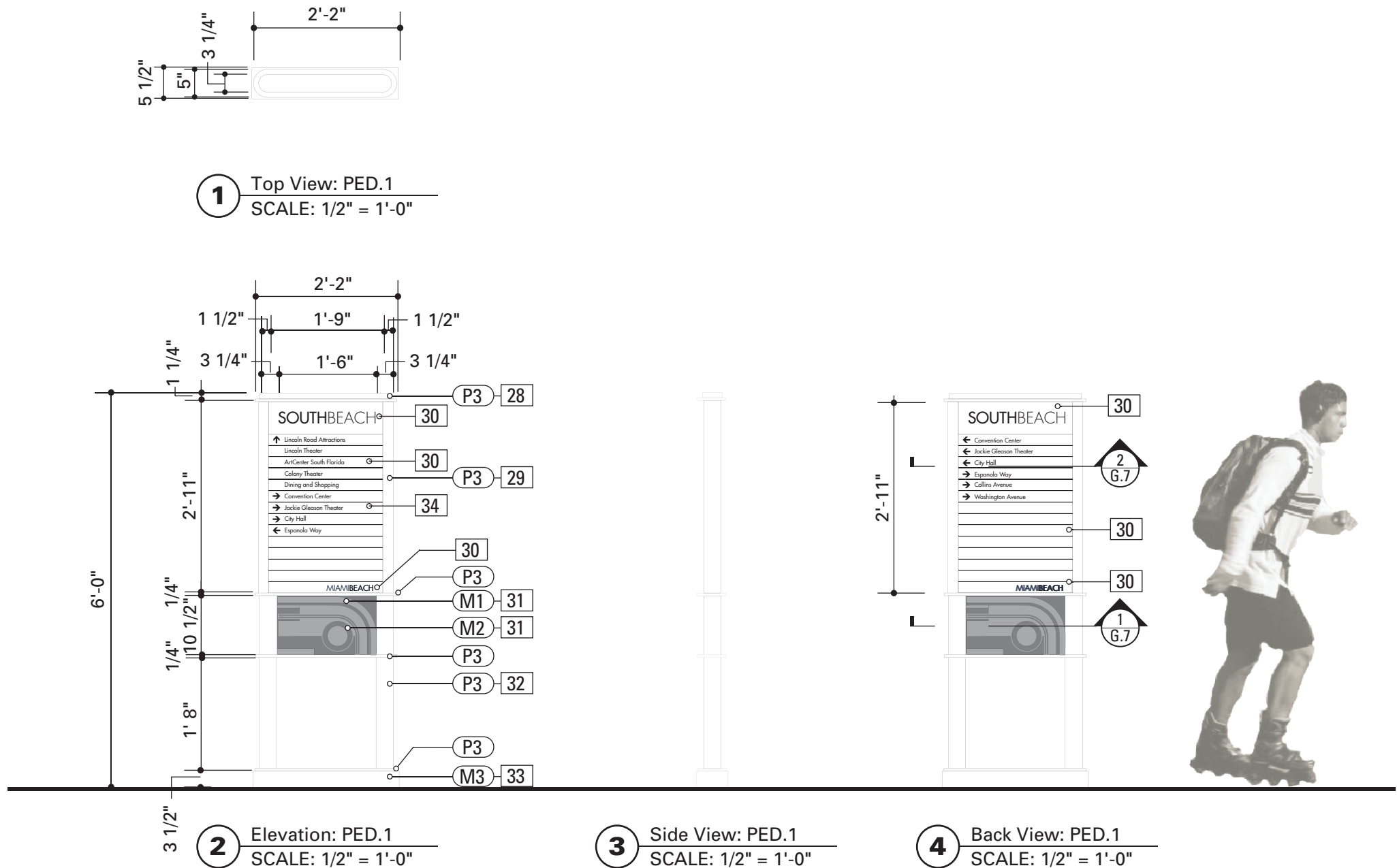
Manufacturer: SignComp Product: Series 1 Part#: 1007
Material: Extruded Aluminum
Size: 3 1/4" Round Post
Fastener: Mech. Fasten to Base and Graphic Panel
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

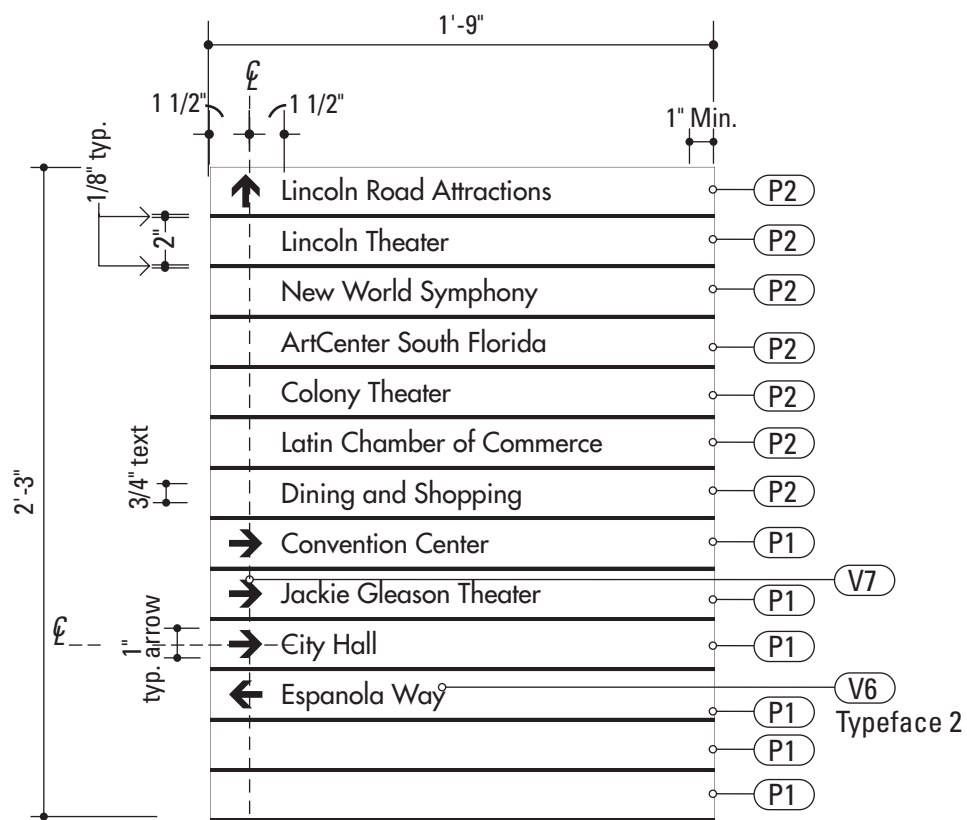
33. CONCRETE BASE

Material: Concrete
Process: PreCast
Edges: 1/2" Radius top
Finish: Smooth
Color: Match Miami Beach Red Concrete Mix Code No.1300248
Approval No. MB05
Reference Footer Section H for Mounting and Footer Details

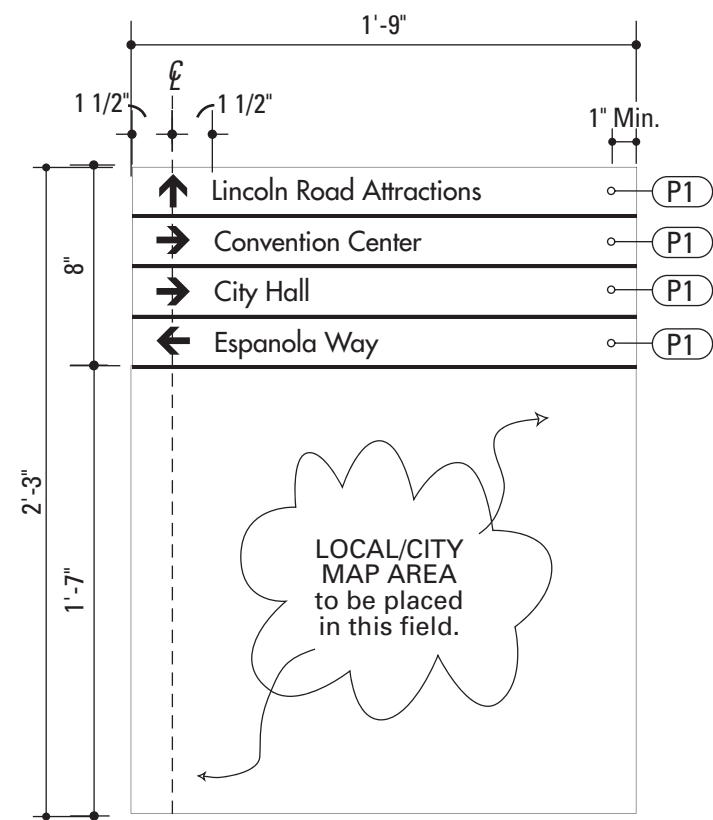
34. INTERPRETIVE / MAP PANEL

Manufacturer: Aluimage - (336) 314-4207
Material: 1/8" Thick Aluminum
Sides: Single
Fabrication Process: Embedded Inks into Aluminum
Graphic Process: CMYK inks 400DPI
Fastener: Mech. Fasten to Panel Post with concealed fasteners.
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

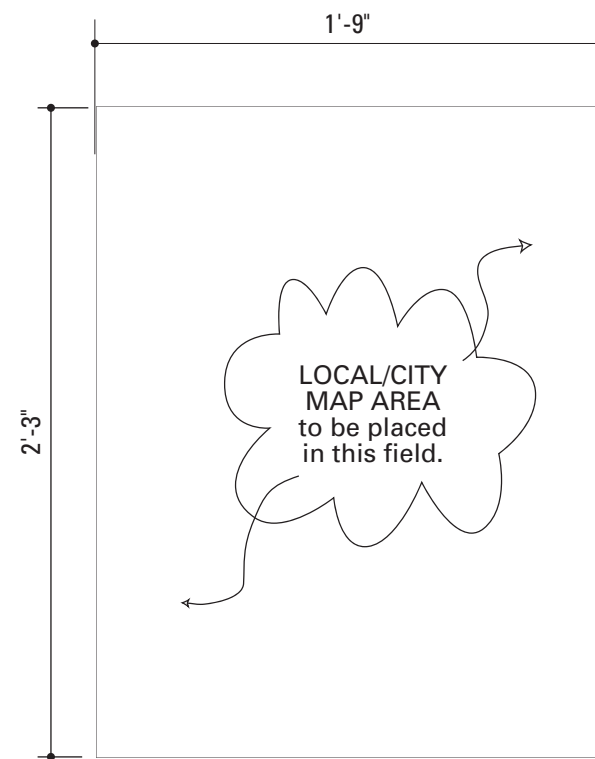




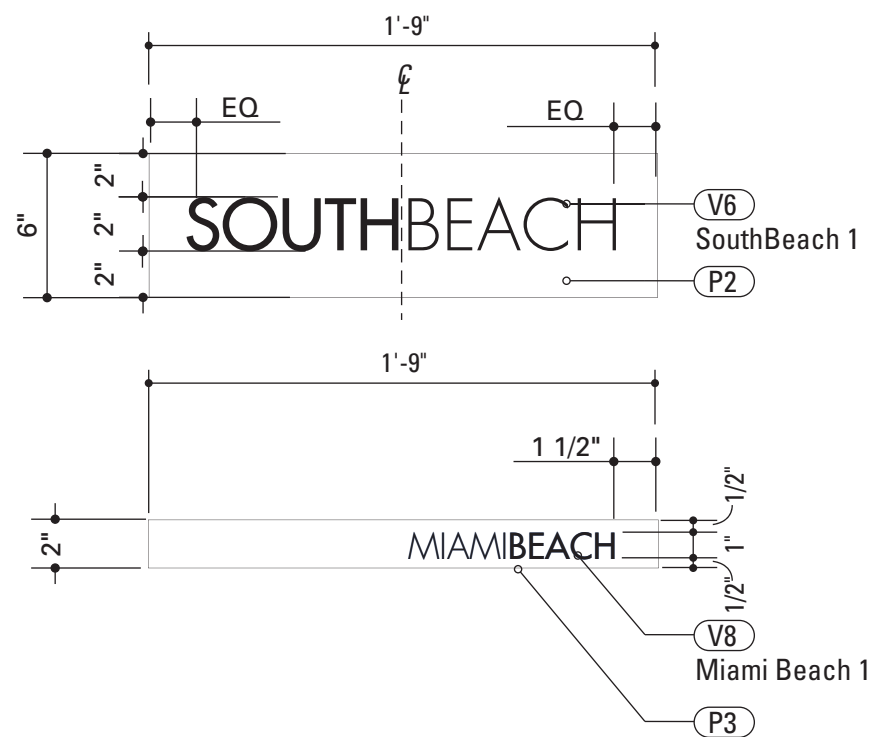
1 Graphic Layout Panel A: PED.1-PED.3
SCALE: 1/8" = 1"



2 Graphic Layout Panel B: PED.1-PED.3
SCALE: 1/8" = 1"



3 Graphic Layout Panel C: PED.1-PED.3
SCALE: 1/8" = 1"



4 Graphic Layout Header/Footer Panels: PED.1-PED.3
SCALE: 1/8" = 1"

SIGN TYPE: PED.1-3

GRAPHIC LAYOUT:

PANEL A

- 3/4" typical text height, use 1 1/2" line space from strip to baseline
Maximum # characters per listing: 38
- 1" typical straight arrow height, centered vertically on strip, aligned at 1 1/2" horizontally from edge of panel to centerline of arrow
- 2" typical height of each listing strip with 1/8" typical rule line top and bottom, except for first and last strip.
- 1" minimum right edge margin from edge of panel

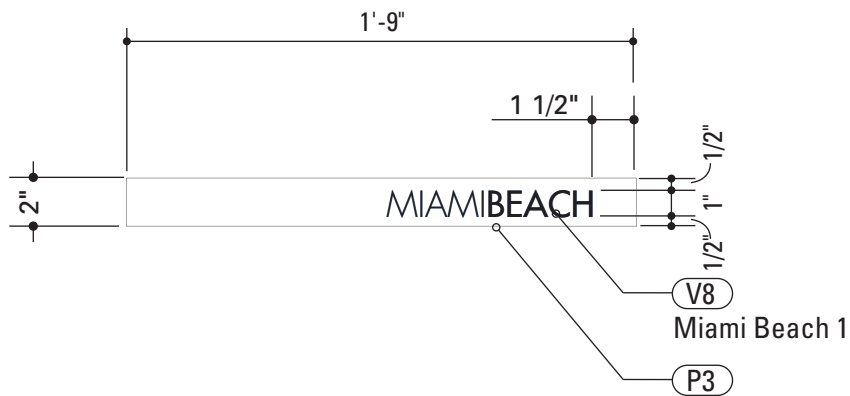
PANEL B:

- Same as above, Only 4 listings
- 1' 7" Artwork space for Orientation Map (TBD) of local area or city provided

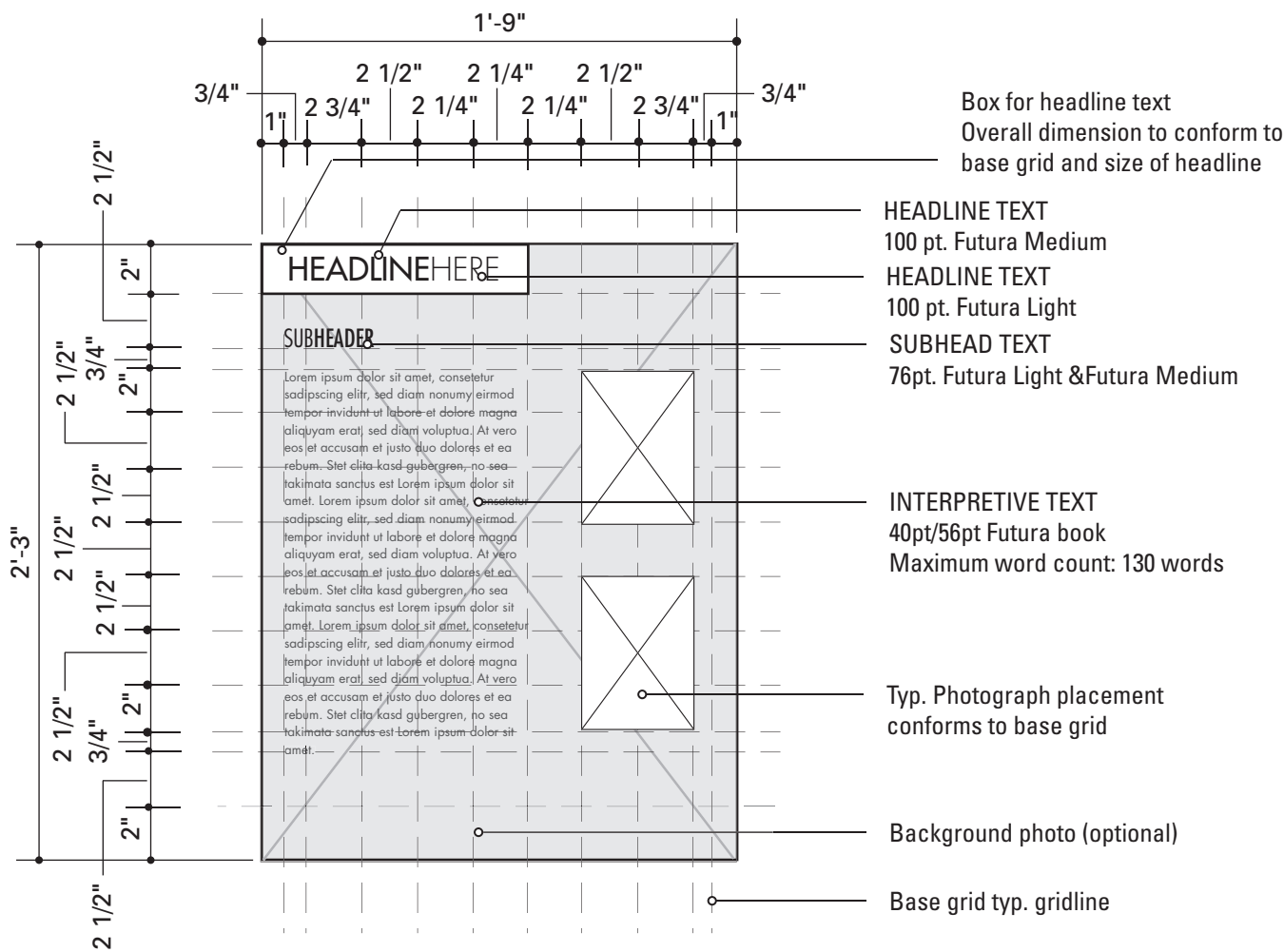
Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.

GRAPHIC LAYOUT

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



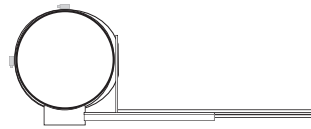
1 Graphic Layout Footer Panels: PED.1-PED.3
SCALE: 1/8" = 1"



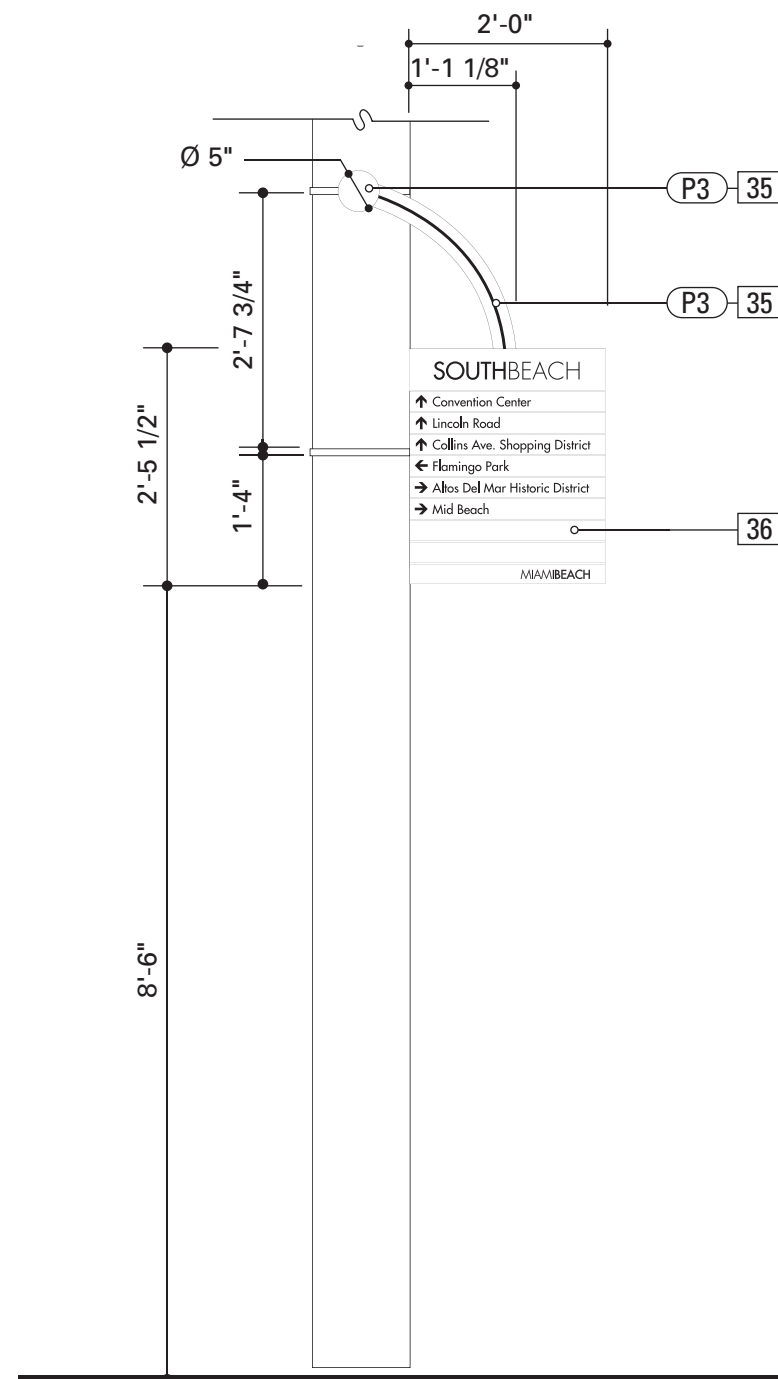
2 Graphic Template Panel: PED.1-3/6
SCALE: 1/8" = 1"



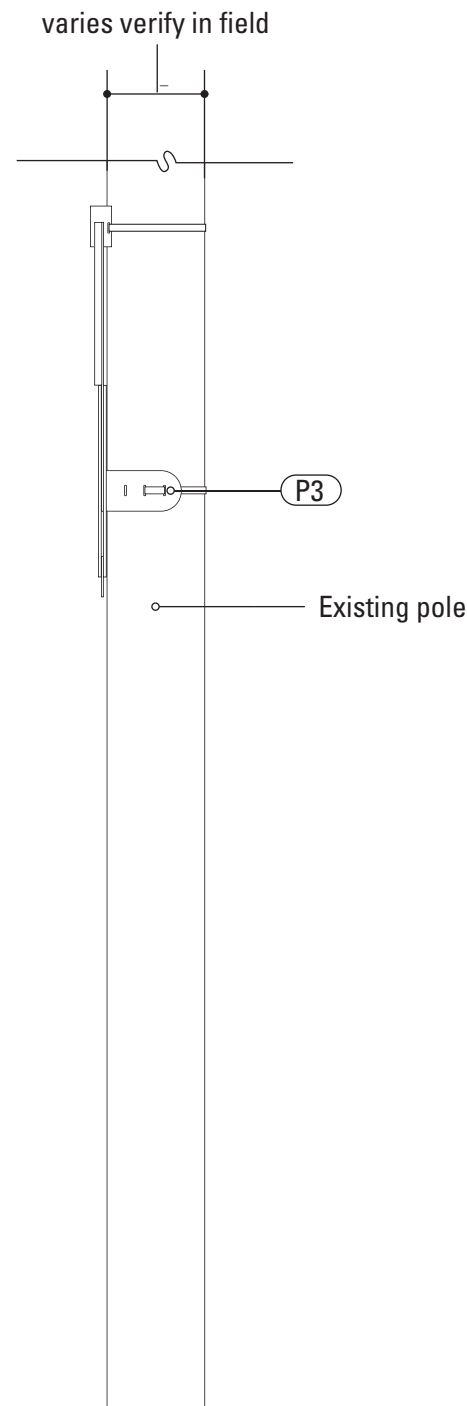
3 Graphic Template Panel: PED.1-3/6
SCALE: 1/8" = 1"



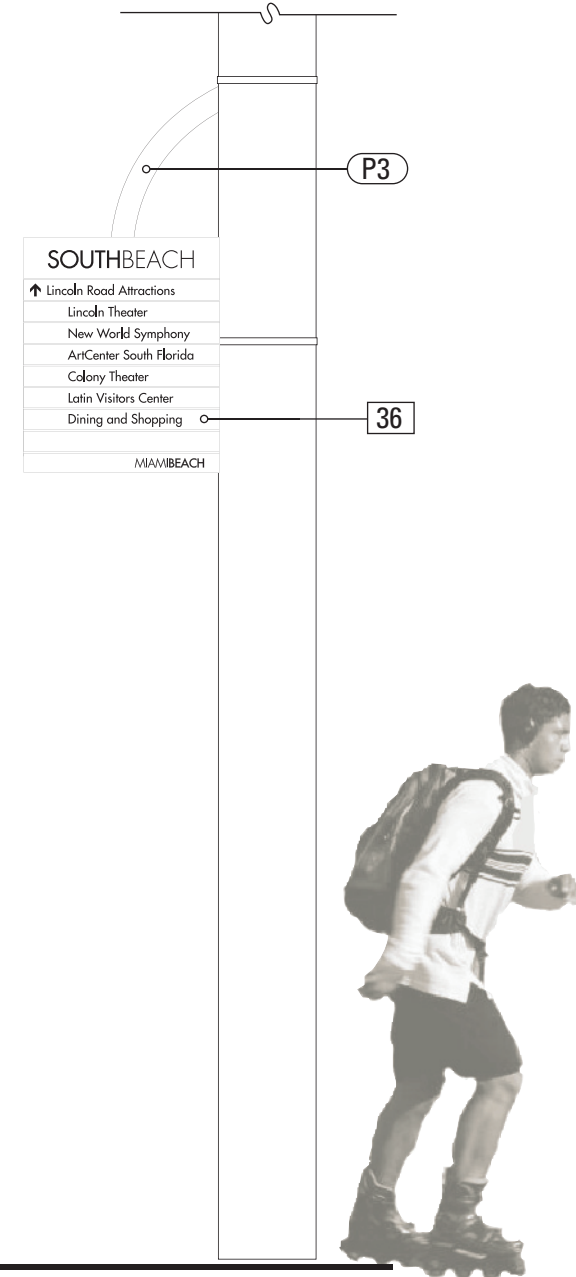
1 Top View: PED.4
SCALE: 1/2" = 1'-0"



2 Elevation: PED.4
SCALE: 1/2" = 1'-0"



3 Side View: PED.4
SCALE: 1/2" = 1'-0"



4 Back View: PED.4
SCALE: 1/2" = 1'-0"

SPECIFICATIONS:

35. MOUNTING ASSEMBLY

Bracket

Material: Aluminum

Fabrication Process: Routed Cut/ Weld/Fabricated

Edges: Smooth

Fastener: Posts using strapping;-Weld to Sign Panel

Surface Process: Paint all exposed surfaces

Topcoat: MPC: Acrylic Polyurethane Satin MAP

Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Strapping

Material: Stainless Steel

Size: 3/4" x .020"; Fits 4" up to 12" Dia. Poles. fabricator to verify dimensions prior to Fabrication

36. SIGN PANEL

Material: 1/8" Thick Aluminum

Sided: Single

Size: 2'-0" x 2'-2 1/2"

Surface Process: Paint all exposed surfaces

Topcoat: MPC: Acrylic Polyurethane Satin MAP

Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: For double sided configurations panels are sandwiched around Mounting Bracket

Copy Graphic

Product: 3M Scotchcal Opaque

Material: Vinyl

Process: Electronically Cut / Applied

Finish: Matte

Color: as shown

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



GRAPHIC LAYOUT:

- 1" typical text height, use 1 1/2" line space from strip to baseline
Maximum # characters per listing: 32
- 1 1/2" typical straight arrow height, centered vertically on strip, aligned at 1 3/8" horizontally from edge of panel to centerline of arrow
- 2 1/2" typical height of each listing strip with 1/8" typical rule line top and bottom, except for first and last strip.
- 2" minimum right edge margin from edge of panel

Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.

SPECIFICATIONS:

35. MOUNTING ASSEMBLY

Bracket
Material: Aluminum
Fabrication Process: Routed Cut/ Weld/Fabricated
Edges: Smooth
Fastener: Posts using strapping; Weld to Sign Panel
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

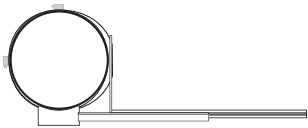
Strapping
Material: Stainless Steel
Size: 3/4" x .020"; Fits 4" up to 12" Dia. Poles. fabricator to verify dimensions prior to Fabrication

37. MAP PANEL

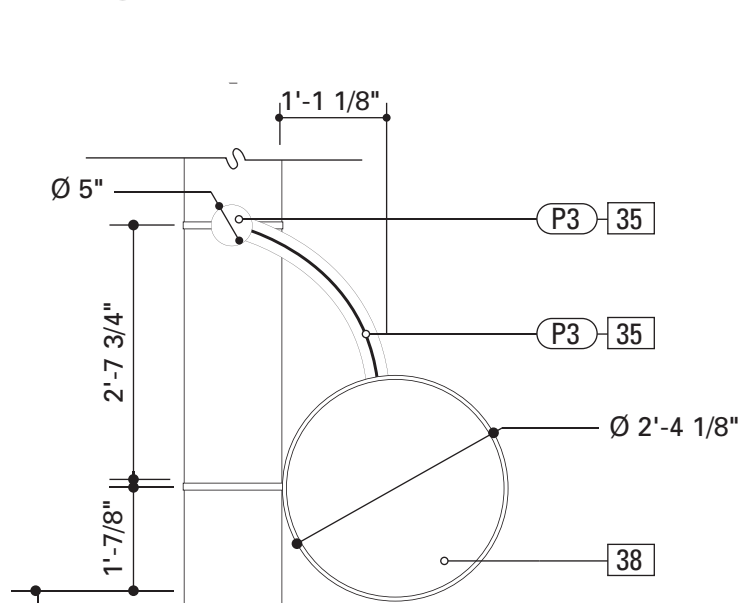
Material: 1/8" Thick Aluminum
Sided: Single
Size: 2'-4" Dia.
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Note: For double sided configurations panels are sandwiched around Mounting Bracket

Map Graphic
Manufacturer: Aluimage - (336) 314-4207
Material: 1/8" Thick Aluminum
Sides: Single
Fabrication Process: Embedded Inks into Aluminum
Graphic Process: CMYK inks 400DPI
Fastener: Weld to Mounting Bracket
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

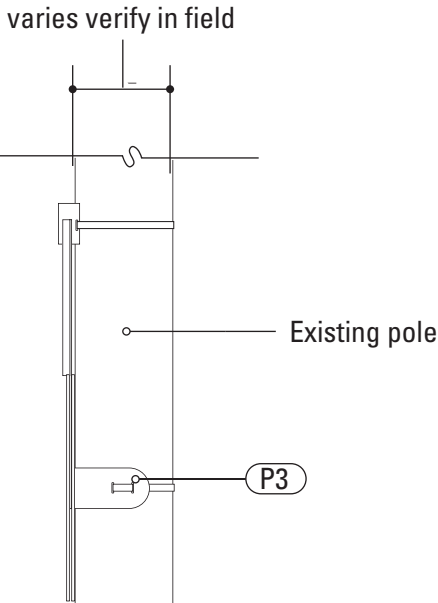
Note: The artwork design is still to be determined.



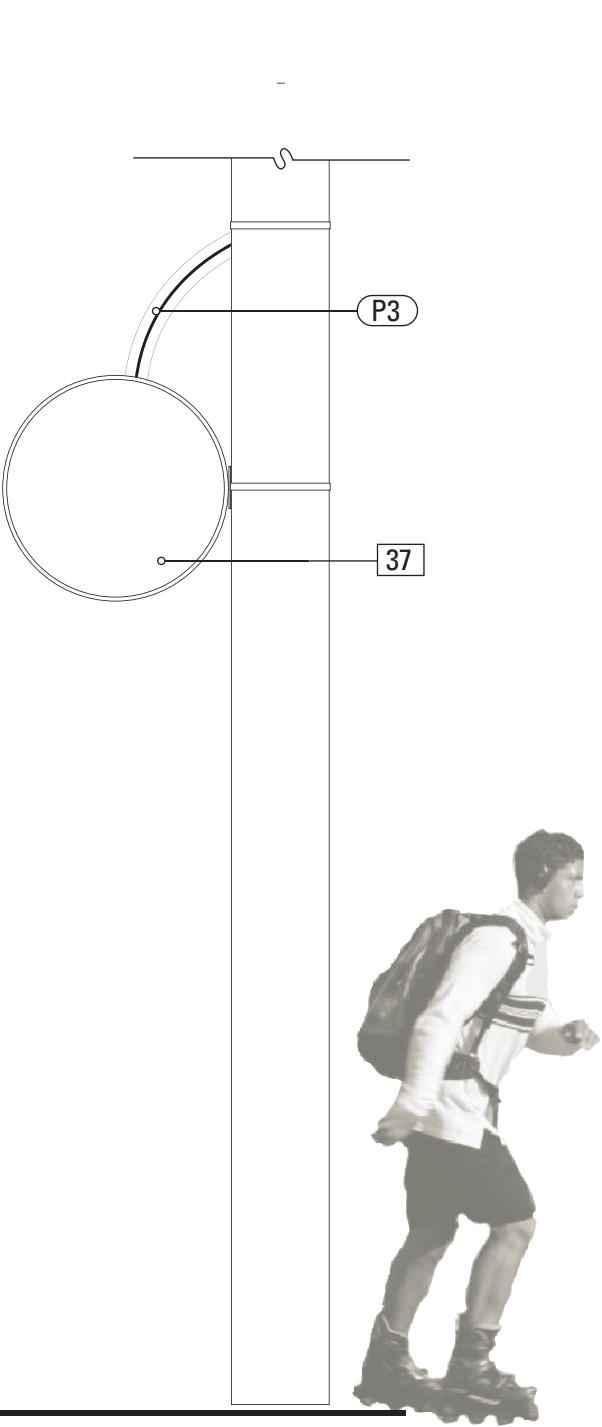
1 Top View: PED.5
SCALE: 1/2" = 1'-0"



2 Elevation: PED.5
SCALE: 1/2" = 1'-0"



3 Side View: PED.5
SCALE: 1/2" = 1'-0"



4 Back View: PED.5
SCALE: 1/2" = 1'-0"

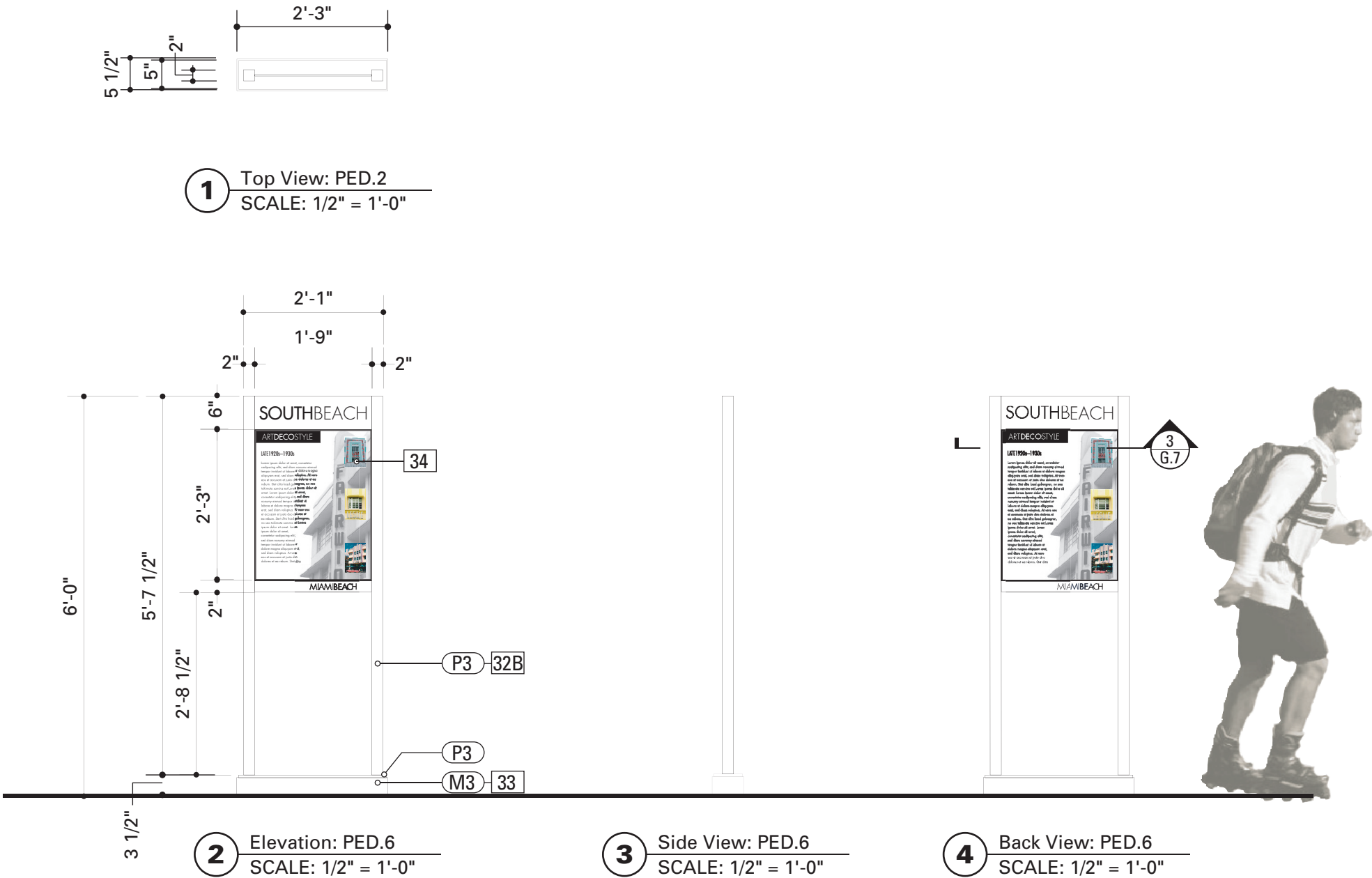
SPECIFICATIONS:

32. UPRIGHT POST
Manufacturer: SignComp Product: Series 1 Part#: 1000
Material: Extruded Aluminum\
Process: Slotted Post to accommodate custom size
Cap: Removable for replacement of sign panel
Size: 2" Square
Fastener: Mech. Fasten to Base and Graphic Panel
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

33. CONCRETE BASE
Material: Concrete
Process: PreCast
Edges: 1/2" Radius top
Finish: Smooth
Color: Match Miami Beach Red Concrete Mix Code No.1300248
Approval No. MB05
Reference Footer Section H for Mounting and Footer Details

34. INTERPRETIVE / MAP PANEL
Manufacturer: Aluimage - (336) 314-4207
Material: 1/8" Thick Aluminum
Sides: Single
Fabrication Process: Embedded Inks into Aluminum
Graphic Process: CMYK inks 400DPI
Fastener: Mech. Fasten to Panel Post with concealed fasteners
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

\Note: The terminology and messages shown on this page are for reference and graphic layout only and do not represent any specific sign location. Reference the sign message schedule for exact terminology.



SPECIFICATIONS:

9. SIGN PANEL

Panel
Material: 1/8" Thk. Alum.
Fabrication Process: Router Cut
Edges: Smooth
Corners: Eased
Fastener: Weld to U-Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

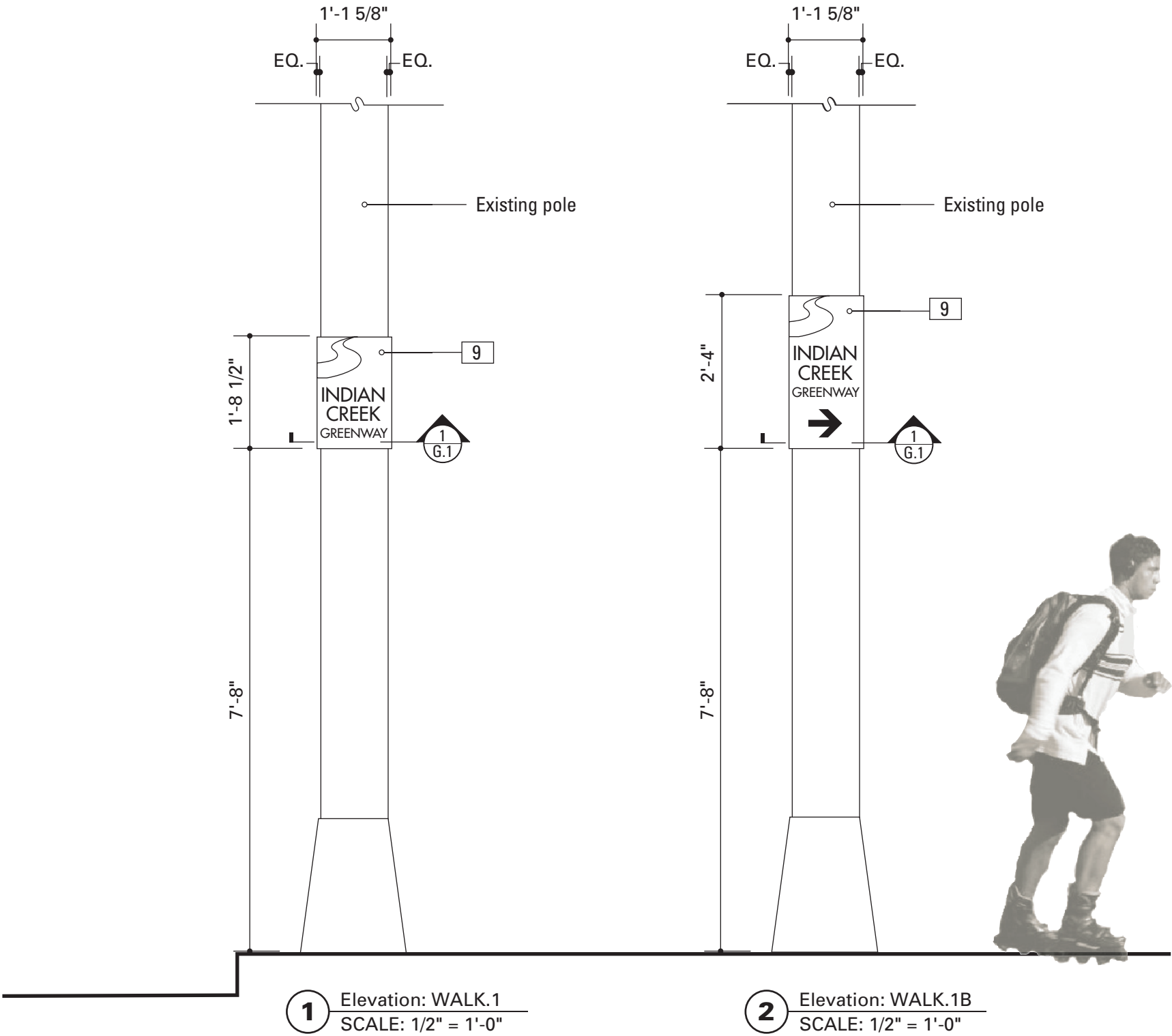
Graphic
Material: Opaque Inks
Process: Screenprinted
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

11. BUCKLE BRACKET ASSEMBLY

Manufacturer: Garden State Highway Products 1-800-338-5685
Strapping
Material: Stainless Steel
Size: 3/4" x .020"; Fits 4" up to 12" Dia. Poles

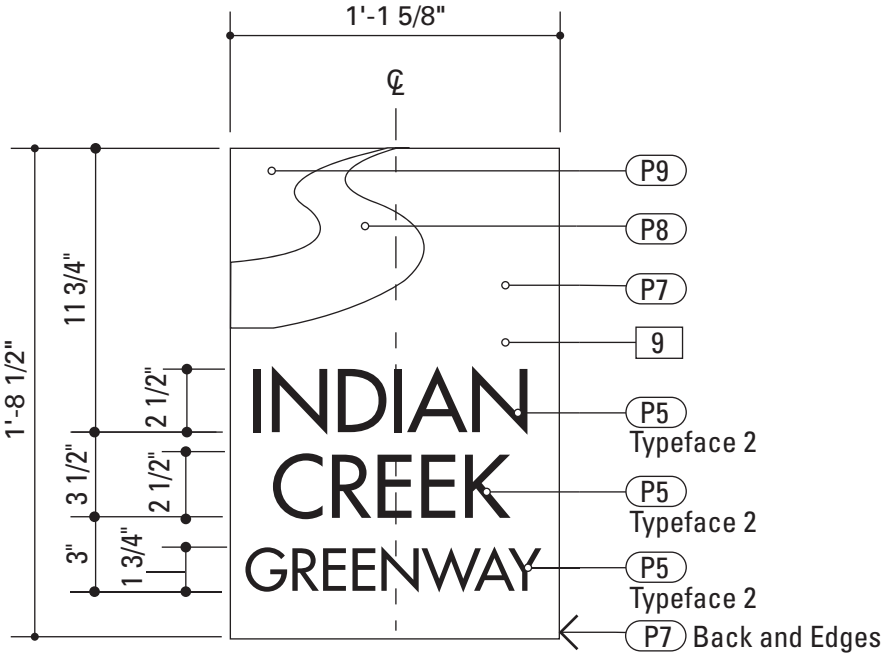
U Bracket
Product: P5AA
Material: Aluminum
Size: Fits 4" up to 12" Dia. Poles
Fastener: Weld to Sign Panel
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: If poles are 4" or less use U-Bracket M5AA. Fabricator to Field Verify Locations.



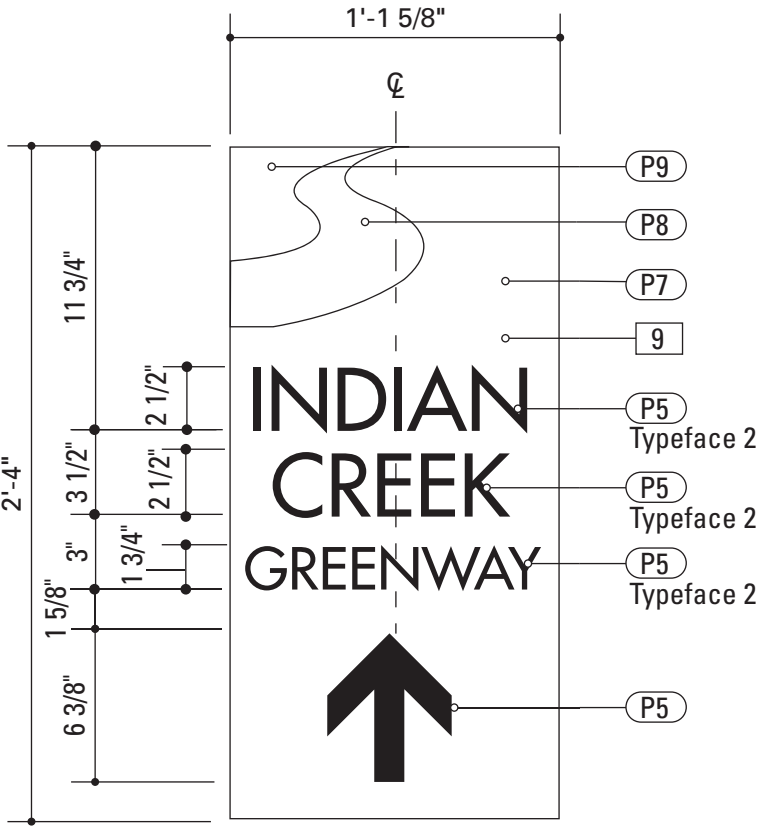
GRAPHIC LAYOUT:

- 2 1/2" typical copy height, centered on panel
use 3 1/2" line space from baseline to baseline
Maximum # characters per line: 6
Maximum # lines: 2
- Alternative 1 3/4" copy height,
use 3" line space from baseline to baseline
Maximum # characters per line: 8
- 6 3/8" typical straight arrow height,
centered vertically on panel
1 5/8" from baseline of copy
- 5 1/8" typical left or right arrow height,
centered vertically on panel
2 1/2" from baseline of copy



1 Graphic Layout: WALK.1
SCALE: 1/8" = 1"

Note: The Printing Process is Screen Printing. The solid color fields are to match the paint colors specified on this page.



2 Graphic Layout: WALK.1B
SCALE: 1/8" = 1"



3 Graphic Layout: WALK.1B
SCALE: 1/8" = 1"

SPECIFICATIONS:

9. SIGN PANEL

Panel
Material: 1/8" Thk. Alum.
Fabrication Process: Router Cut
Edges: Smooth
Corners: Eased
Fastener: Weld to U-Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

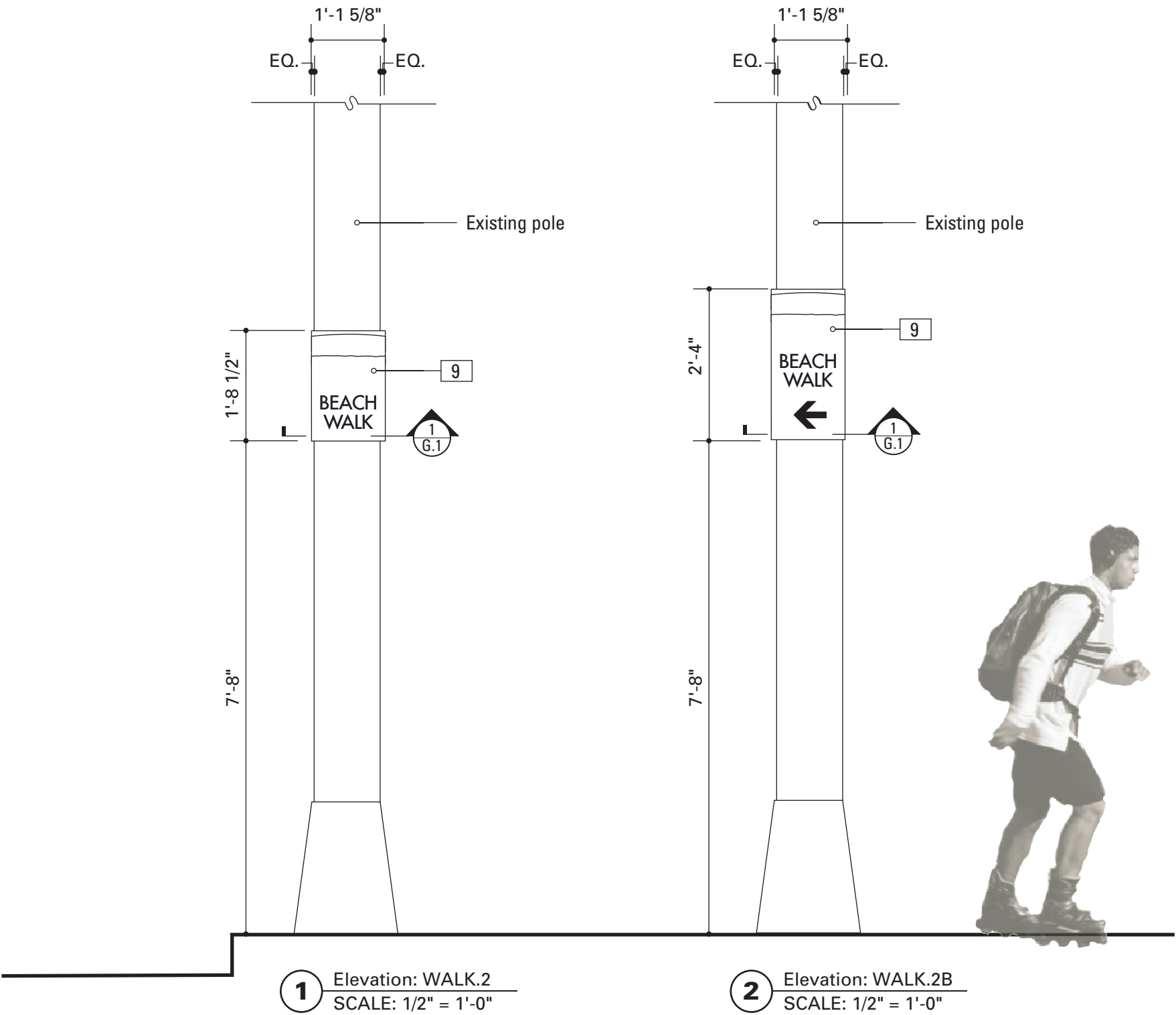
Graphic
Material: Opaque Inks
Process: Screenprinted
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

11. BUCKLE BRACKET ASSEMBLY

Manufacturer: Garden State Highway Products 1-800-338-5685
Strapping
Material: Stainless Steel
Size: 3/4" x .020"; Fits 4" up to 12" Dia. Poles

U Bracket
Product: P5AA
Material: Aluminum
Size: Fits 4" up to 12" Dia. Poles
Fastener: Weld to Sign Panel
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: If poles are 4" or less use U-Bracket M5AA. Fabricator to Field Verify Locations.

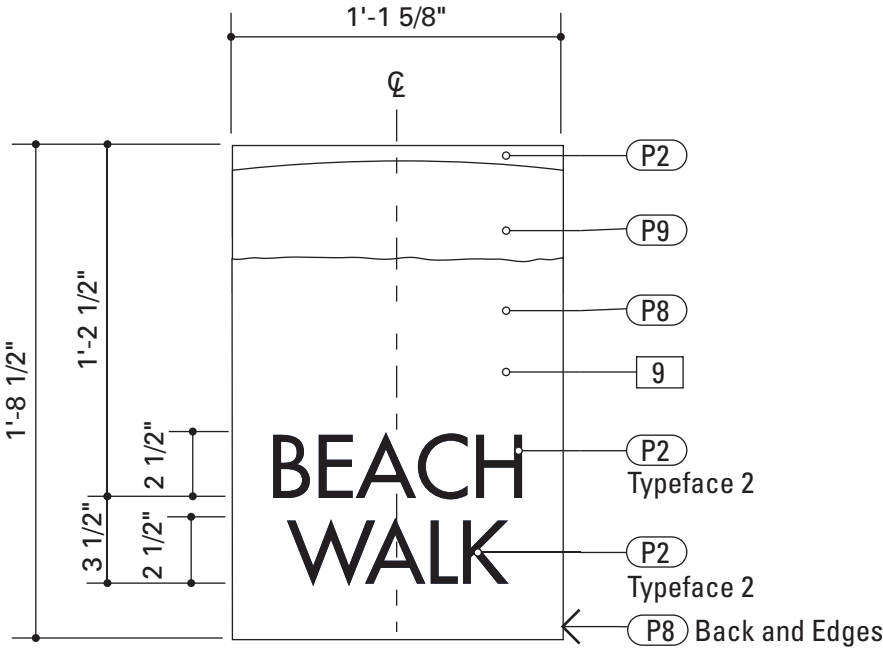


GRAPHIC LAYOUT:

- 2 1/2" typical copy height, centered on panel
use 3 1/2" line space from baseline to baseline
Maximum # characters per line: 6
Maximum # lines: 2

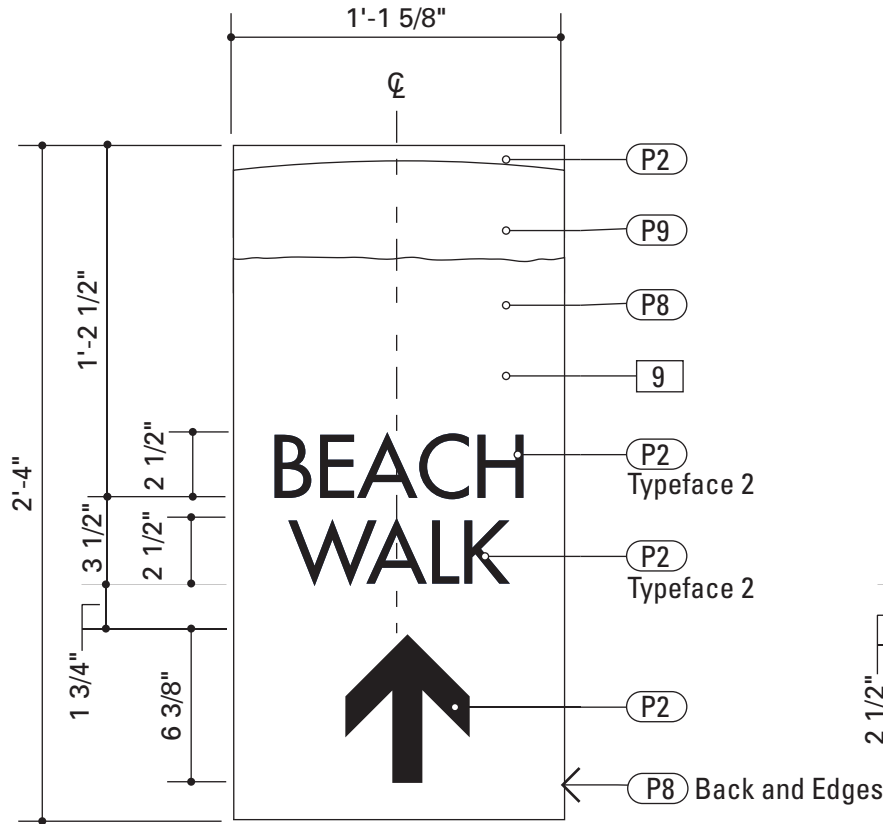
Alternative 1 3/4" copy height,
use 3" line space from baseline to baseline
Maximum # characters per line: 8

- 6 3/8" typical straight arrow height,
centered vertically on panel
1 5/8" from baseline of copy
- 5 1/8" typical left or right arrow height,
centered vertically on panel
2 1/2" from baseline of copy

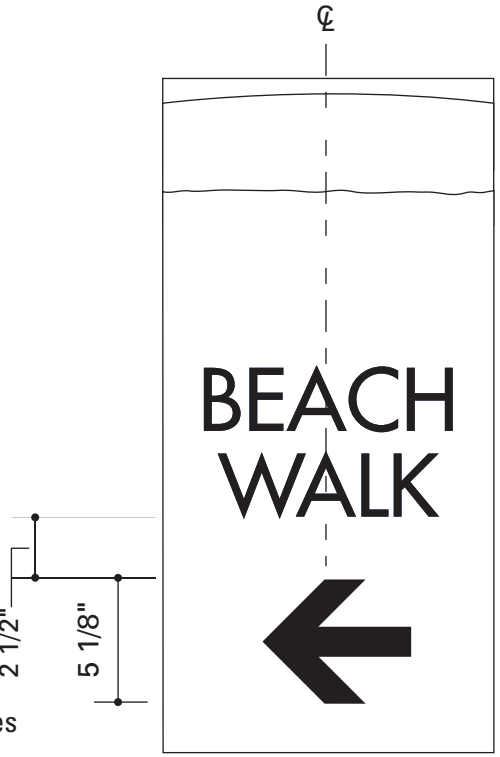


1 Graphic Layout: WALK.2
SCALE: 1/8" = 1"

Note: The Printing Process is
Screen Printing. The solid color
fields are to match the paint colors
specified on this page.



2 Graphic Layout: WALK.2B
SCALE: 1/8" = 1"



3 Graphic Layout: WALK.2B
SCALE: 1/8" = 1"

SPECIFICATIONS:

9. SIGN PANEL

Panel
Material: 1/8" Thk. Alum.
Fabrication Process: Router Cut
Edges: Smooth
Corners: Eased
Fastener: Weld to U-Bracket
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

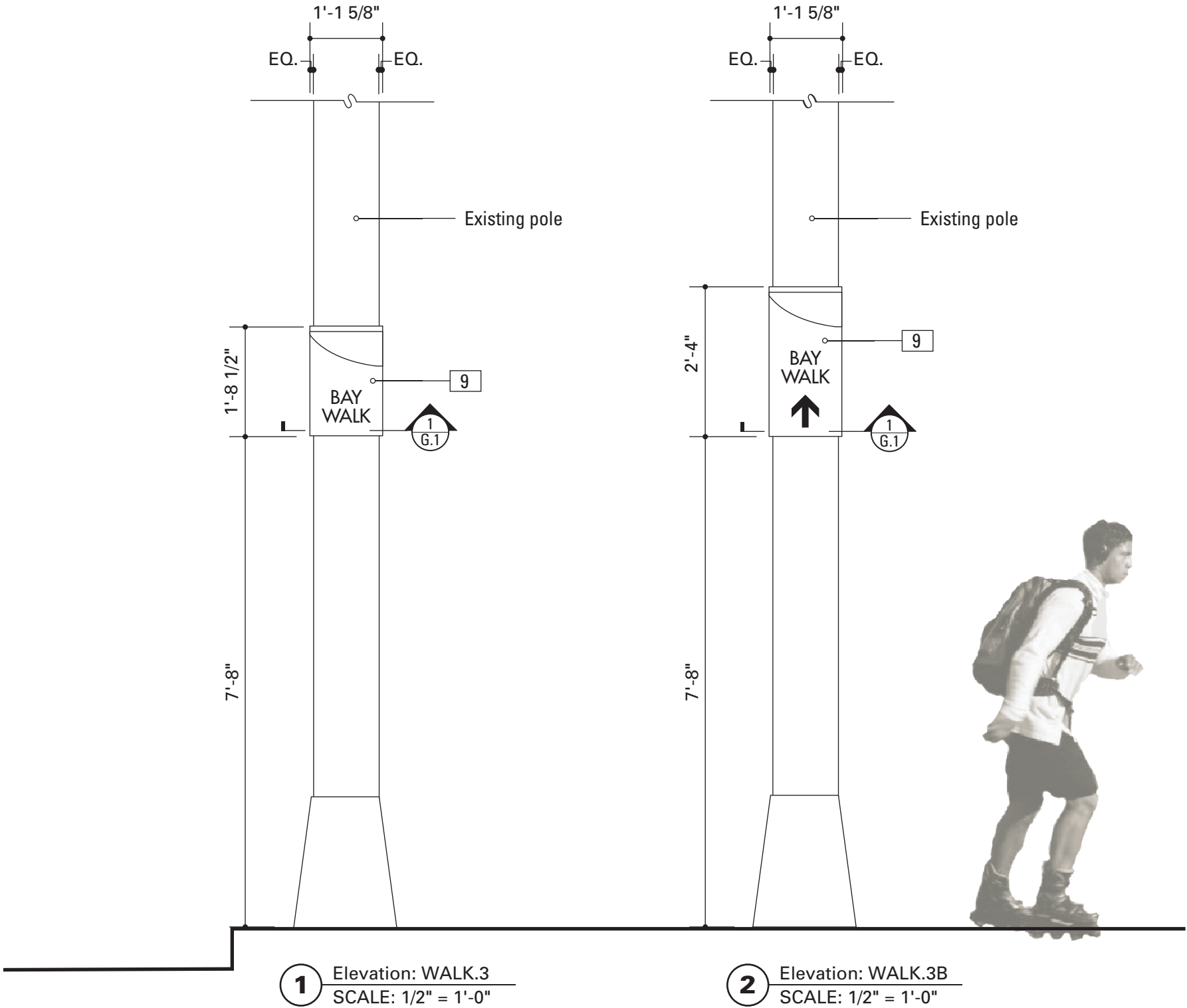
Graphic
Material: Opaque Inks
Process: Screenprinted
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

11. BUCKLE BRACKET ASSEMBLY

Manufacturer: Garden State Highway Products 1-800-338-5685
Strapping
Material: Stainless Steel
Size: 3/4" x .020"; Fits 4" up to 12" Dia. Poles

U Bracket
Product: P5AA
Material: Aluminum
Size: Fits 4" up to 12" Dia. Poles
Fastener: Weld to Sign Panel
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Note: If poles are 4" or less use U-Bracket M5AA. Fabricator to Field Verify Locations.

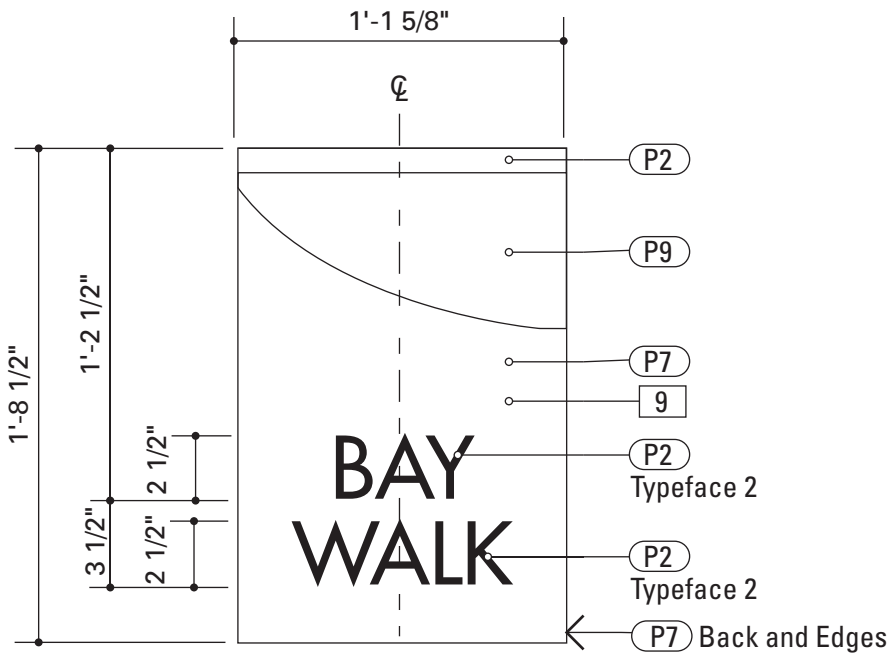


GRAPHIC LAYOUT:

- 2 1/2" typical copy height, centered on panel
use 3 1/2" line space from baseline to baseline
Maximum # characters per line: 6
Maximum # lines: 2

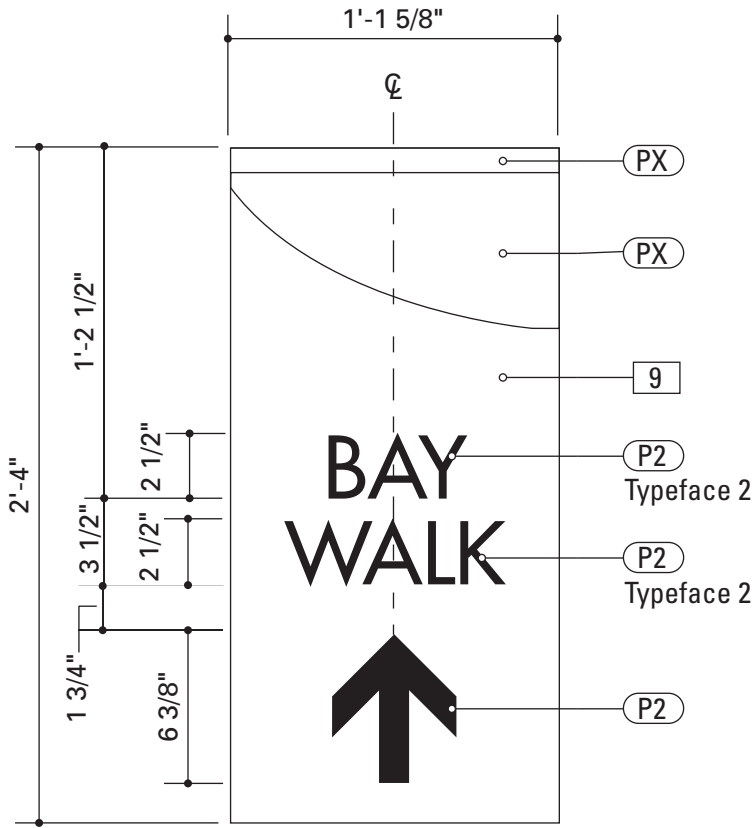
Alternative 1 3/4" copy height,
use 3" line space from baseline to baseline
Maximum # characters per line: 8

- 6 3/8" typical straight arrow height,
centered vertically on panel
1 5/8" from baseline of copy
- 5 1/8" typical left or right arrow height,
centered vertically on panel
2 1/2" from baseline of copy

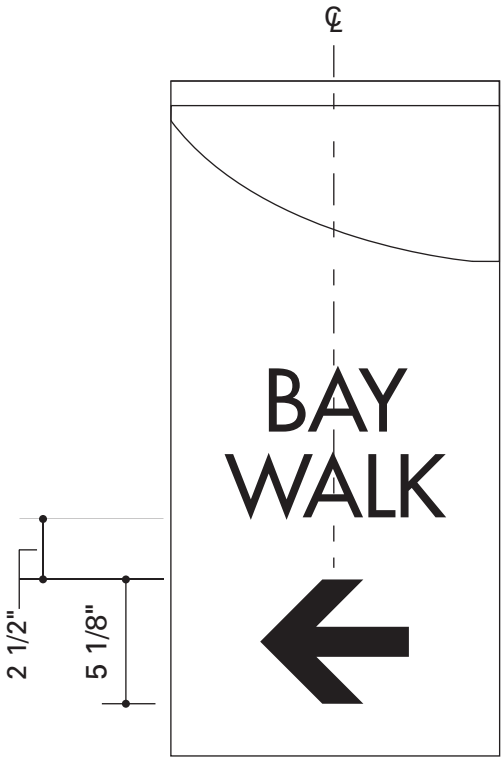


1 Graphic Layout: WALK.3
SCALE: 1/8" = 1"

Note: The Printing Process is
Screen Printing. The solid color
fields are to match the paint colors
specified on this page.



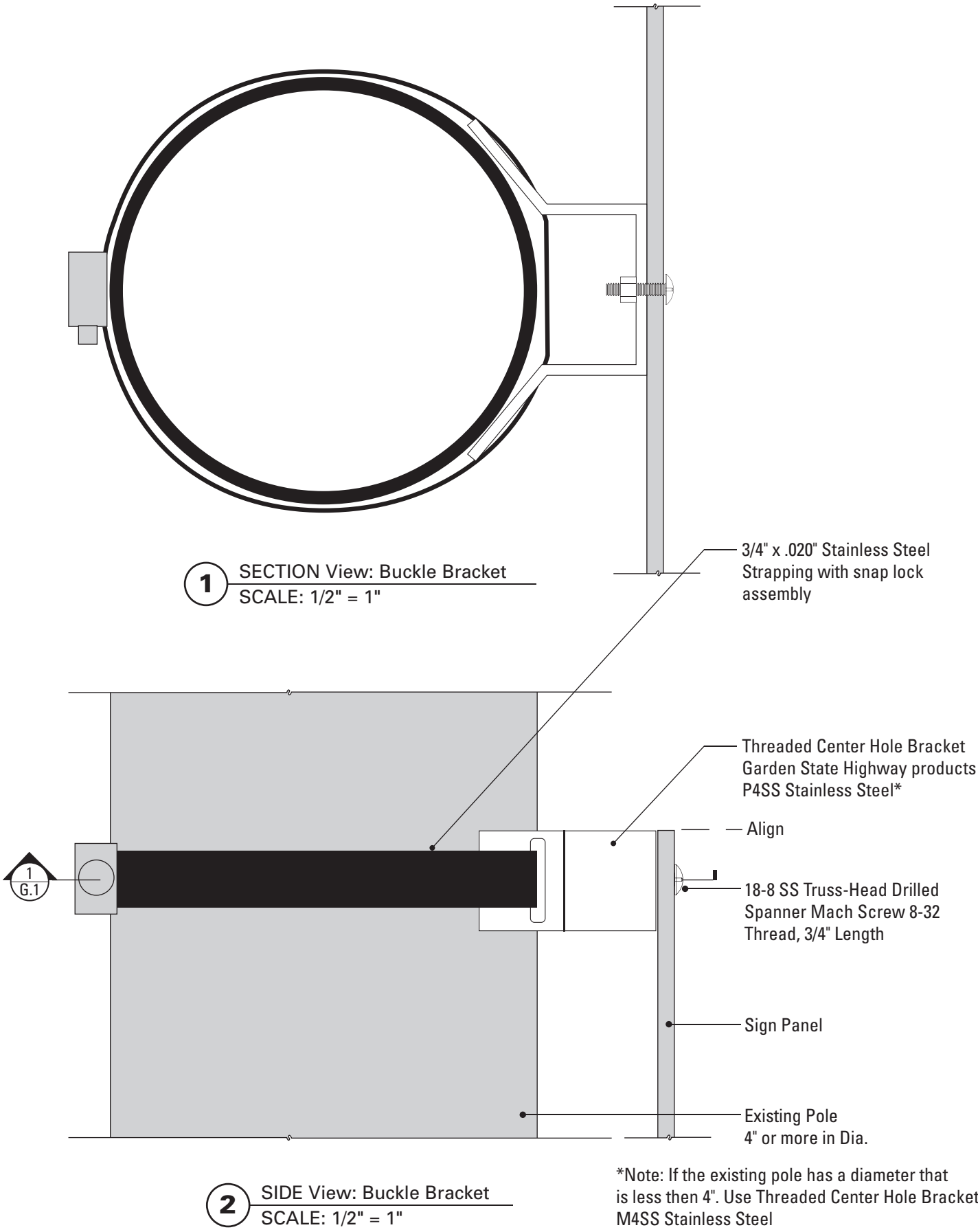
2 Graphic Layout: WALK.3B
SCALE: 1/8" = 1"



3 Graphic Layout: WALK.3B
SCALE: 1/8" = 1"

SECTION G: **CONSTRUCTION DETAILS**

MOUNTING BRACKET DETAIL



COMMENTS:

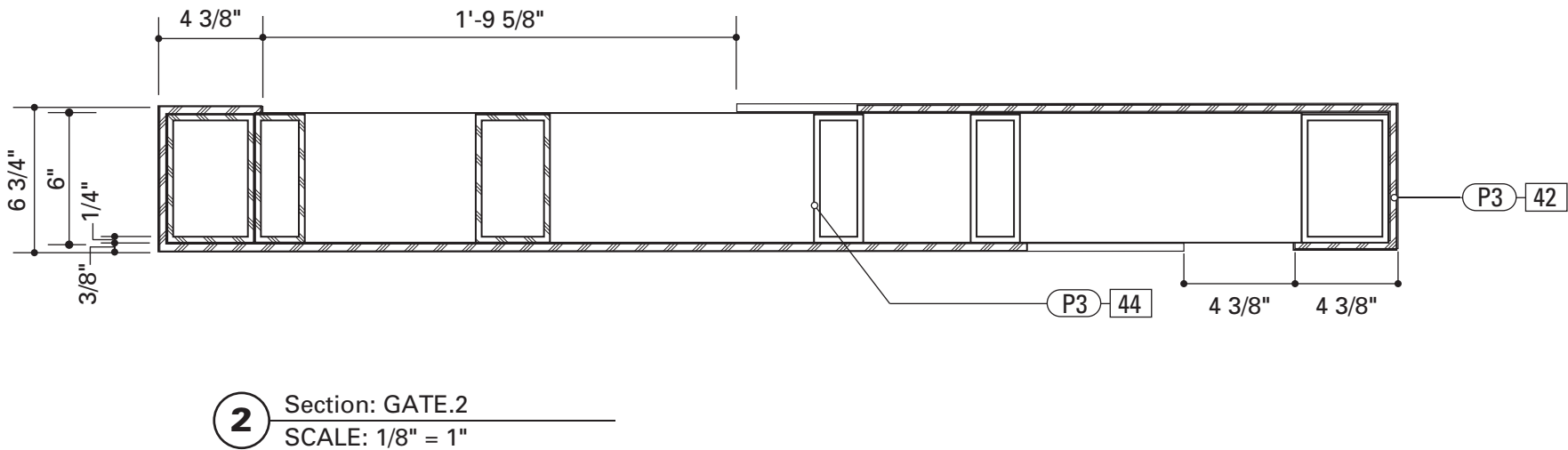
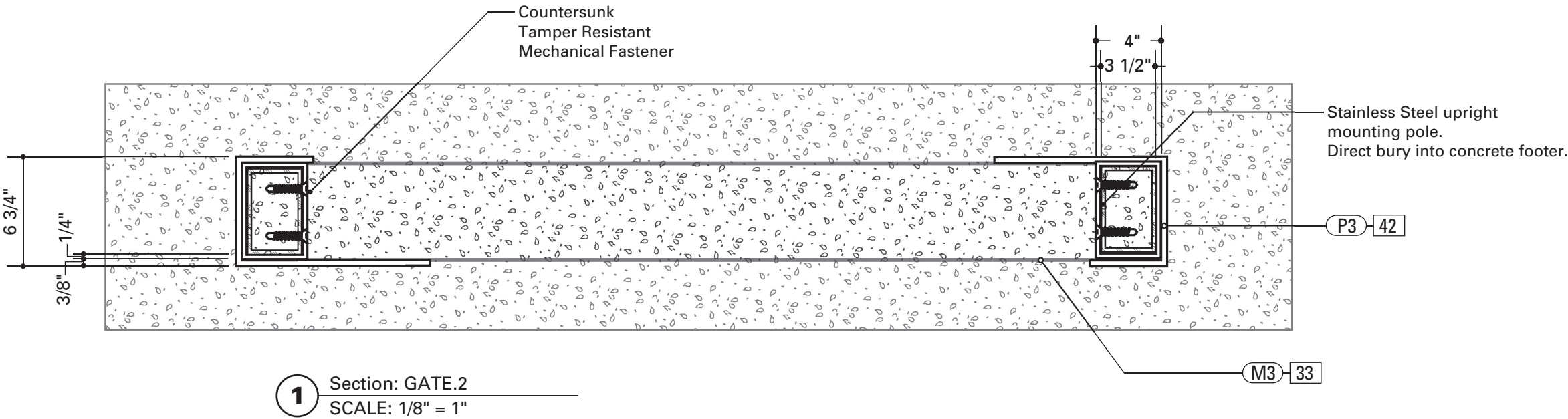
SPECIFICATIONS

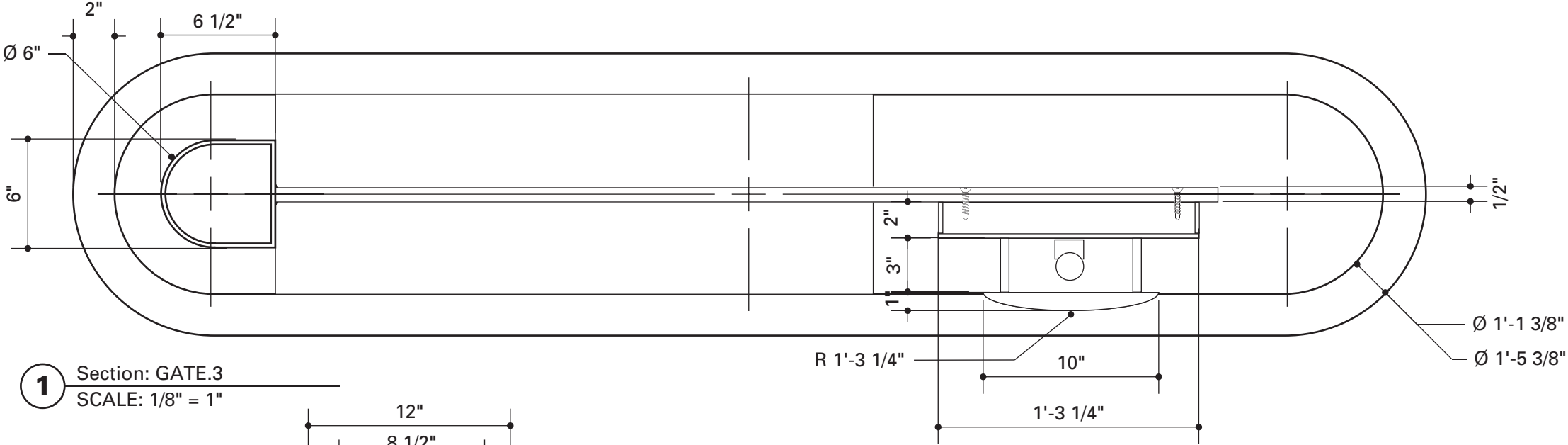
33. CONCRETE BASE
Material: Concrete
Process: PreCast
Edges: 1/2" Radius top
Finish: Smooth
Color: Match Miami Beach Red Concrete Mix Code No.1300248
Approval No. MB05
Reference Footer Section H for Mounting and Footer Details

42. BODY PANEL ASSEMBLY
Material: 3/16"Thk. Alum.
Fabrication Process: Cut/ Breakformed
Fastener: Weld to Dimensional Letters / Inner Post
Edges: Smooth
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

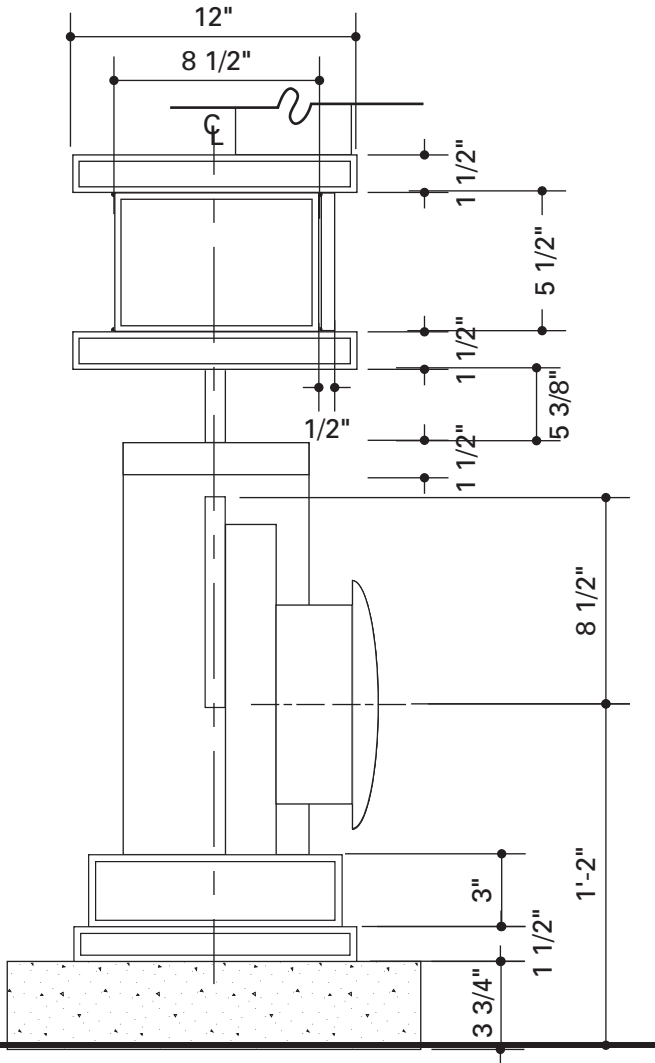
Inner Post
Material: 1/8"Thk. Alum.
Size: 4" x 6" Square
Fabrication Process: Extruded / Cut to length/ Weld Flanges
Fastener: Mechanically Fasten to Body Panel/ Weld to Bracket
Surface Process: Paint all exposed surfaces
Under Coat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

44. DIMENSIONAL GRAPHIC PANEL
Product: Dimensional Channel Letters/Pattern
Material: Aluminum
Fabrication Process: Routed/ Fabricated/ Backs Tops Capped
Fastener: Weld to Bracket / Inner Posts
Edges: Smooth
Illumination: External
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

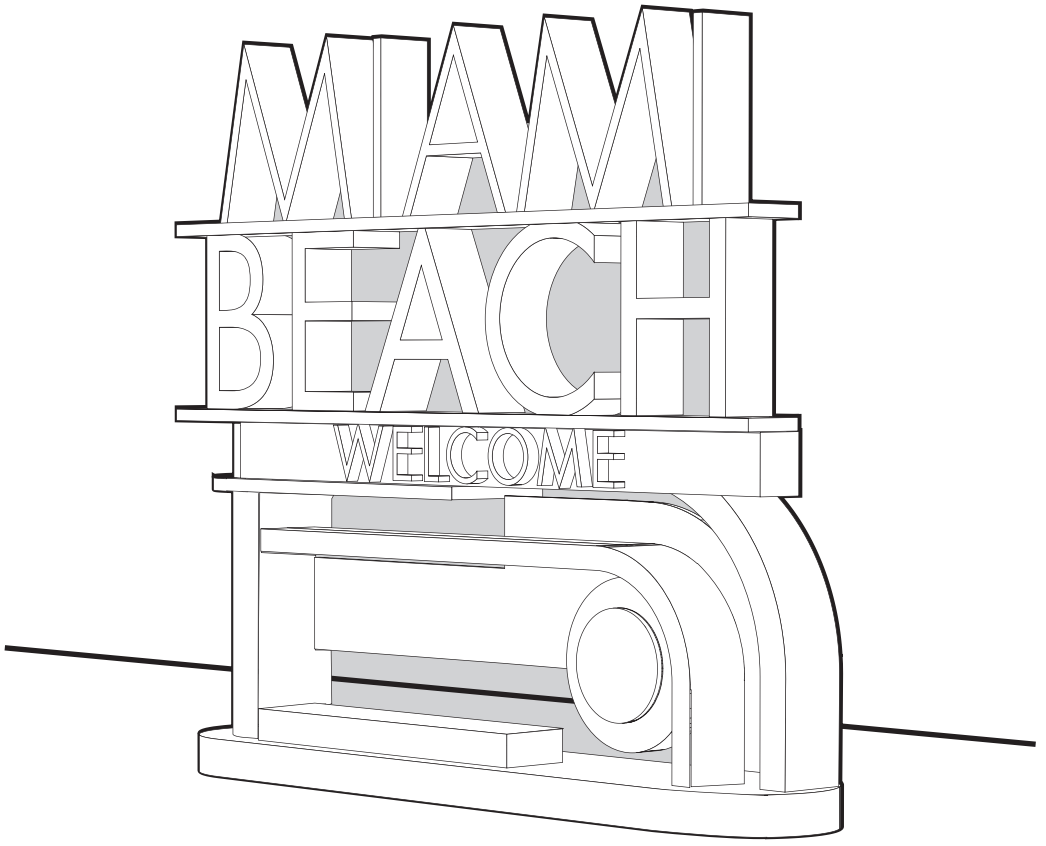




1 Section: GATE.3
SCALE: 1/8" = 1"



2 Section: GATE.3
SCALE: 1/8" = 1"



3 Reference View: GATE.3
SCALE: 1/8" = 1"

SPECIFICATIONS:

10. SIGN PANEL

Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Cut / Wrapped
Fastener: Mech. Fasten/ Weld to Bracket Assembly
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

11. POST ASSEMBLY

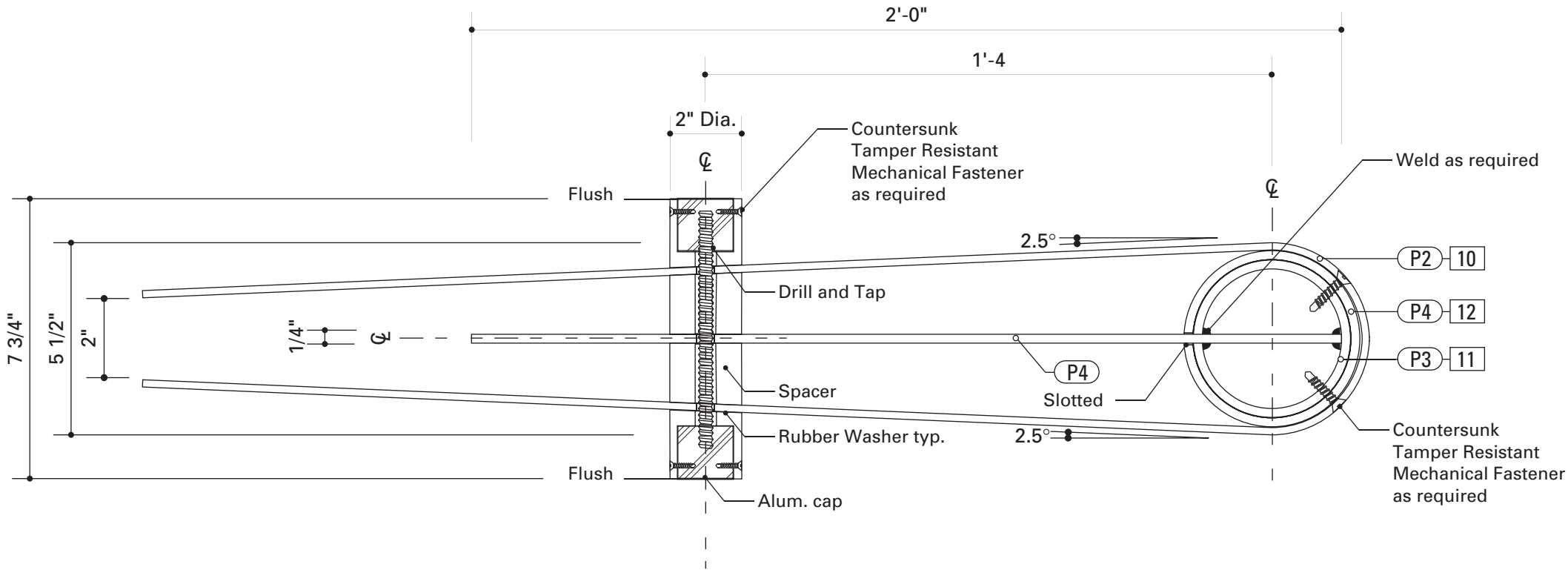
Outer Post
Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post
Material: 1/8" Thk. Alum.
Size: 4 3/4" Dia.
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Under Coat: MPC: U Prime
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

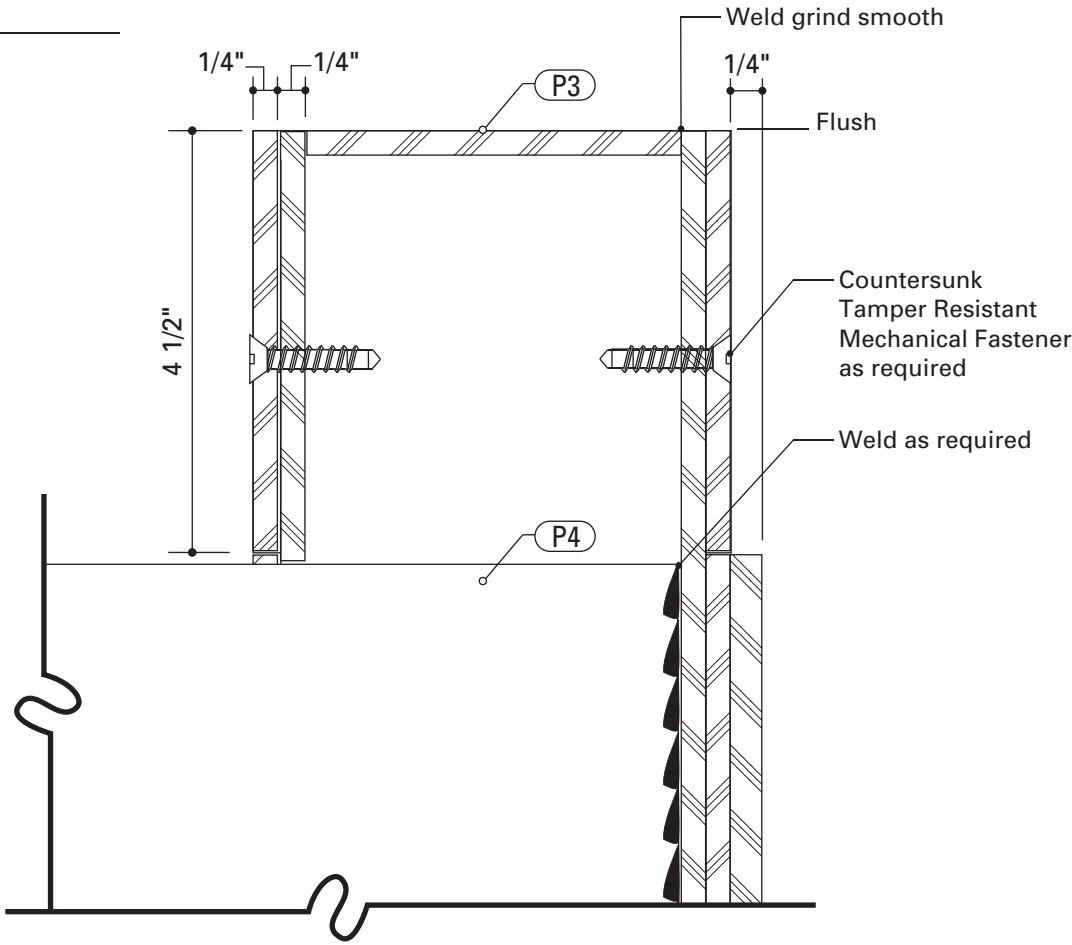
12. BRACKET ASSEMBLY

Blade Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Cut
Fastener: Weld to Blade Panel
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Post Bracket
Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length
Fastener: Weld to Blade Panel/ Mech. Fasten to Inner Post
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



1 Section: ID.1
SCALE: 1/4" = 1"



2 Section: ID.1
SCALE: 1/2" = 1"

SPECIFICATIONS:

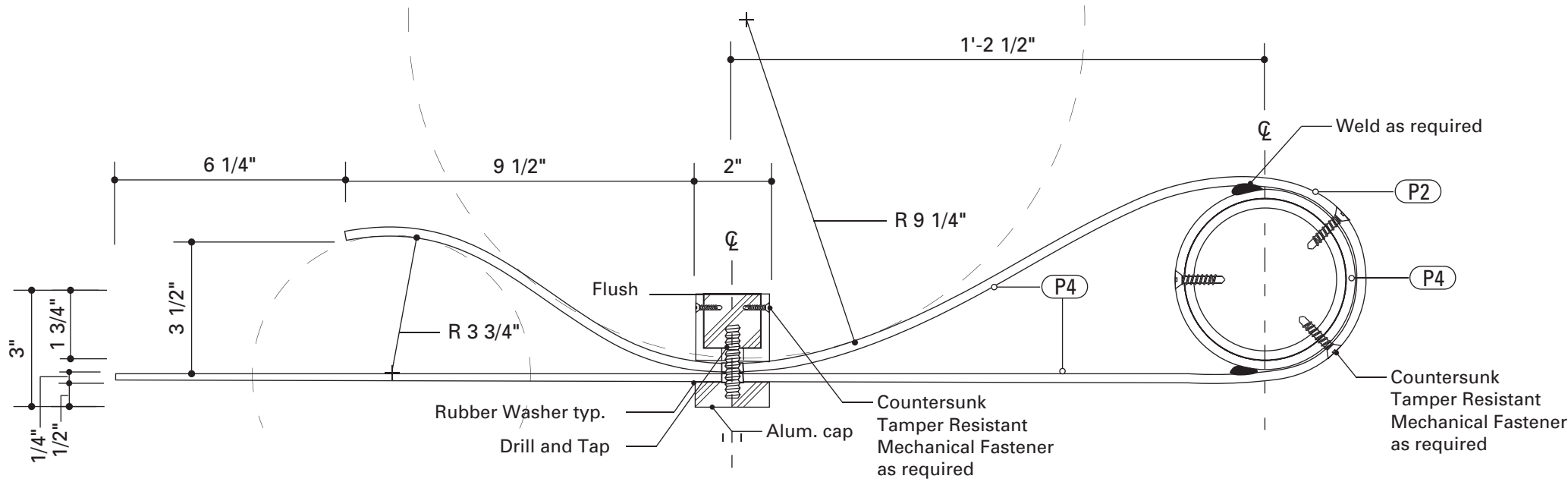
10. SIGN PANEL
Panel
Material: 1/4" Thk. Alum.
Fabrication Process: Cut / Wrapped
Fastener: Mech. Fasten/ Weld to Bracket Assembly
Surface Process: Paint all exposed surfaces
Front: Paint Color P2 Blue
Back: Paint Color P4 Snow Cone Green
Edges: Paint Color P2 Blue
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Graphic
Product: 3M Scotchlite Engineer grade reflective sheeting 3290
Material: Vinyl
Process: Electronically Cut / Applied

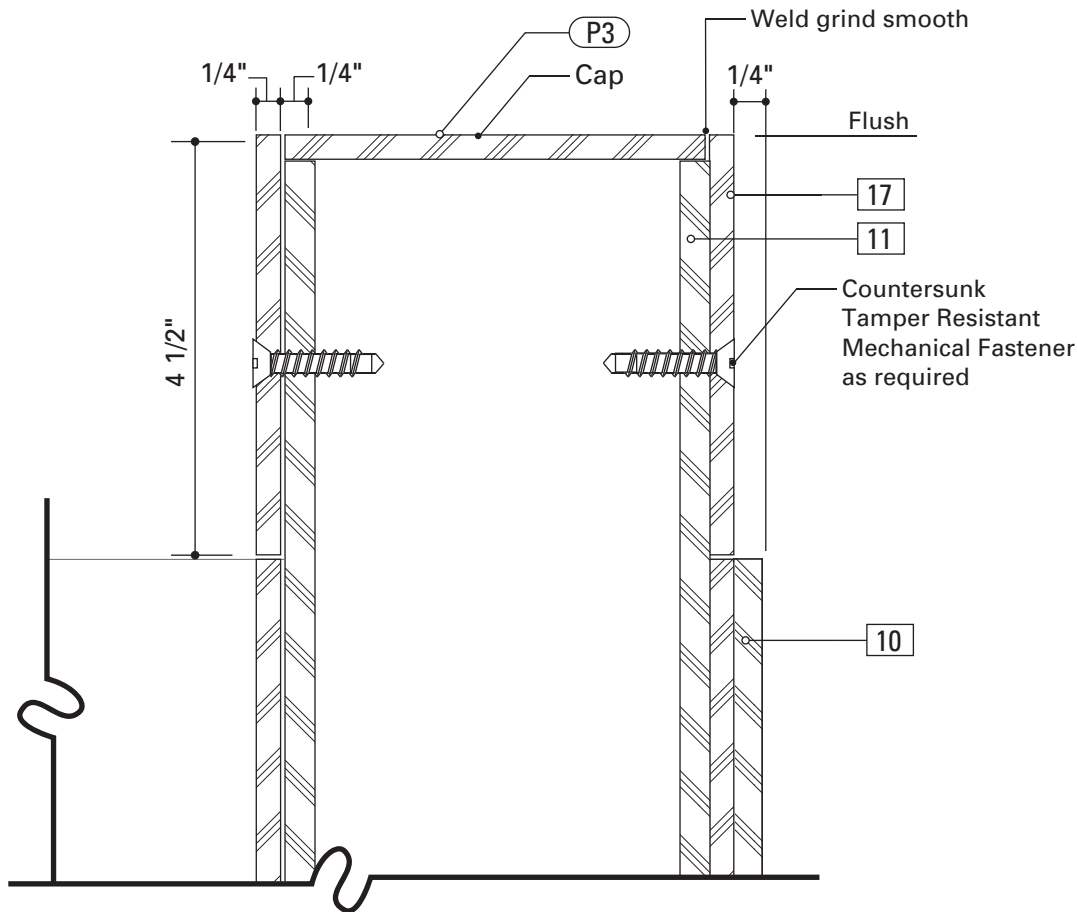
11. POST ASSEMBLY
Outer Post
Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length
Edges: Smooth
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

Inner Post
Material: 1/8" Thk. Alum.
Size: 4 3/4" Dia.
Fastener: Weld to Outer Post
Surface Process: Paint all exposed surfaces
Under Coat: MPC: U Prime
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

17. CAP
Material: 1/8" Thk. Alum.
Size: 5" Dia.
Fabrication Process: Extruded / Cut to length/-Capped
Edges: Smooth
Fastener: Mech. Fasten to Inner post
Surface Process: Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP-Metallic
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



1 Section: NEIGH.1
SCALE: 1/4" = 1"



2 Section: NEIGH.1
SCALE: 1/2" = 1"

SPECIFICATIONS:

28. CAP
Material: Aluminum
Fabrication Process: Routerd Cut/ Weld/Fabricated
Edges: Smooth
Corners: Eased
Fastener: Mech. Fasten to Posts
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

29. PANEL POST
Manufacturer: SignComp Product: Series 3 Part#: 1210
Material: Extruded Aluminum
Size: 3 1/4" Radius Post
Fastener: Mech. Fasten to Cap and Panel
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

30. COPY BAR
Manufacturer: SignComp Product: Series CB
Part#: 1420(2"), 1430(3"), 1450(6")
Material: Extruded Aluminum
Size: 2"x2", 2"x3", 2"x 6" x 2'-2"long
Fastener: Mech. Fasten to Panel Post with Sign Comp Series CB #1410
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

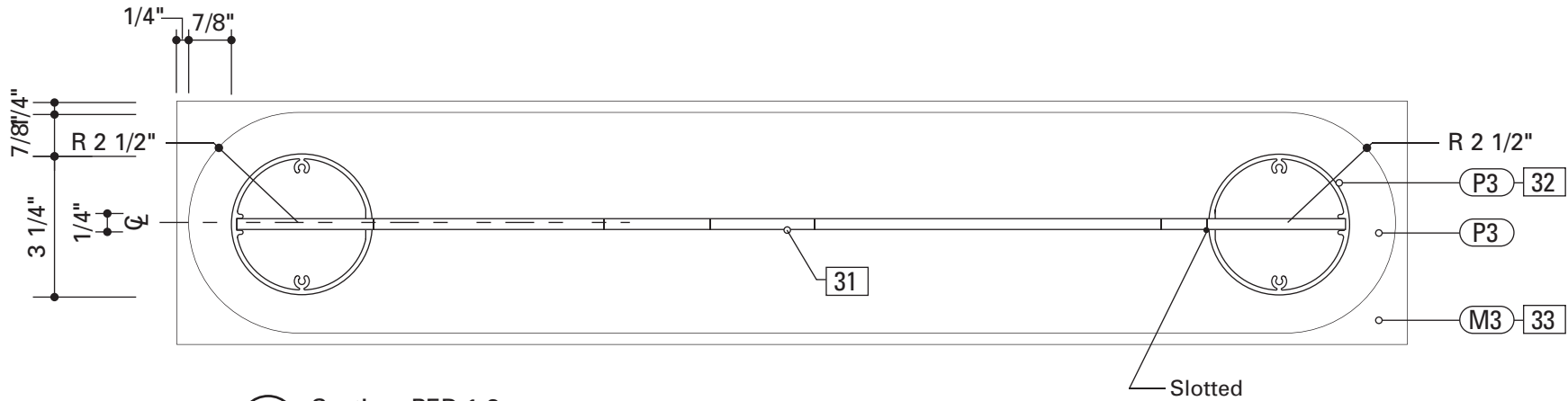
Copy Graphic
Product: 3M Scotchcal Opaque
Material: Vinyl
Process: Electronically Cut / Applied
Finish: Matte
Color: White

31. GRAPHIC PANEL
Material: 1/4" thick Aluminum
Sides: Double
Fabrication Process: Chemically Deep Etched Depth: 1/16"
Fastener: Mech. Fasten to Upright Post with concealed fastnrs.
Raised Finish: Polished
Recessed Finish: Matte
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin
Note: Dark Grey area of graphic is to be Raised and Polished.
Light Grey area of graphic is to be Recessed and Matte

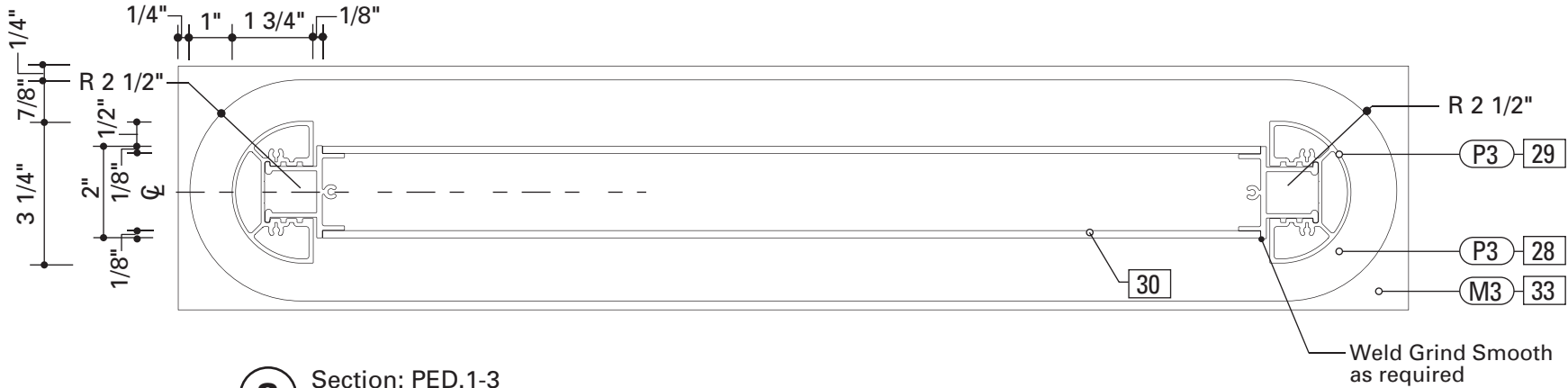
32/32B. UPRIGHT POST
32-Manufacturer: SignComp Product: Series 1 Part#: 1007
32B-Manufacturer: SignComp Product: Series 1 Part#: 1000
Material: Extruded Aluminum
32-Size: 3 1/4" Round Post
32B-Size: 2" Square
Fastener: Mech. Fasten to Base and Graphic Panel
Surface Process:Paint all exposed surfaces
Topcoat: MPC: Acrylic Polyurethane Satin MAP
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin

33. CONCRETE BASE
Material: Concrete
Process: PreCast
Edges: 1/2" Radius top
Finish: Smooth
Color: Match Miami Beach Red Concrete Mix Code No.1300248
Approval No. MB05
Reference Footer Section H for Mounting and Footer Details

34. INTERPRETIVE / MAP PANEL
Manufacturer: Aluimage - (336) 314-4207
Material: 1/8" Thick Aluminum
Sides: Single
Fabrication Process: Embedded Inks into Aluminum
Graphic Process: CMYK inks 400DPI
Fastener: Mech. Fasten to Panel Post with concealed fastnrs.
Clearcoat: MPC: Acrylic Polyurethane 42228 MAP Clear Satin



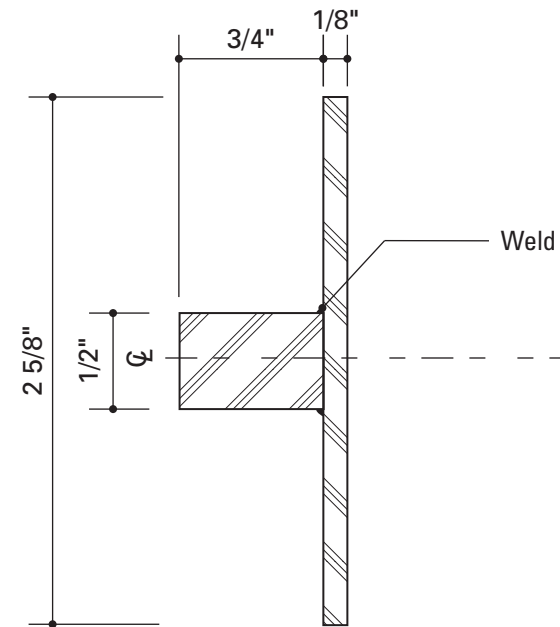
1 Section: PED.1-3
SCALE: 1/4" = 1"



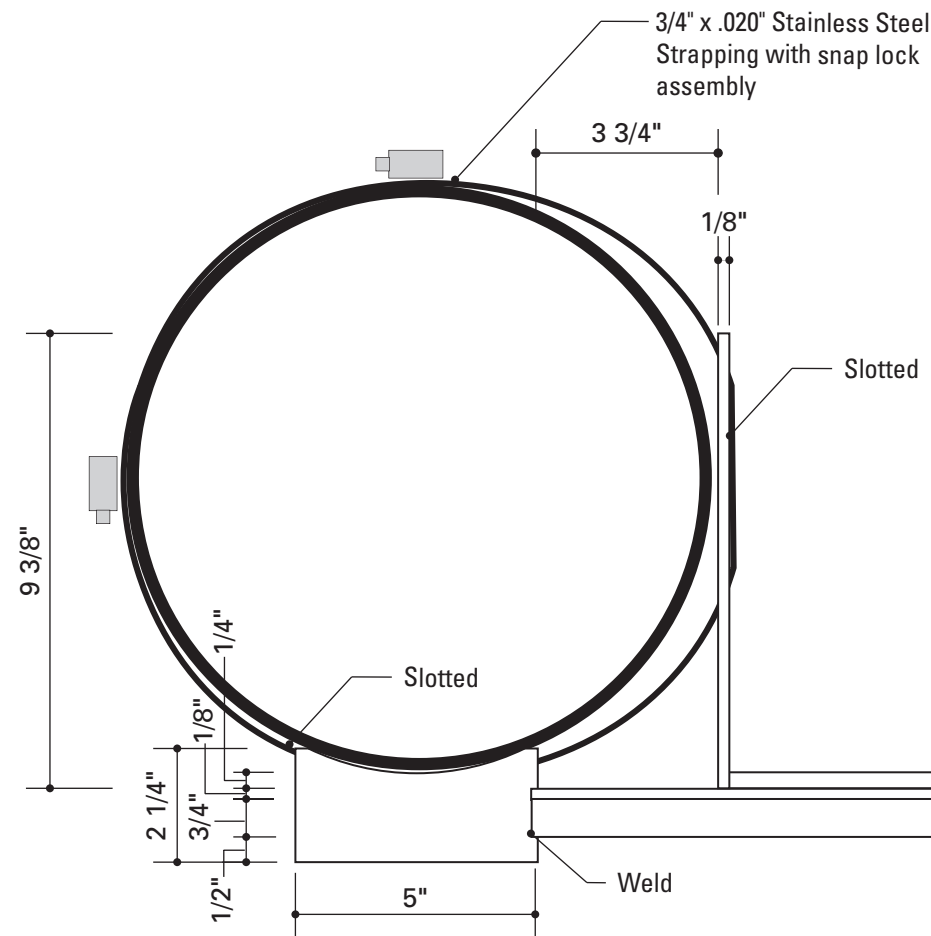
2 Section: PED.1-3
SCALE: 1/4" = 1"



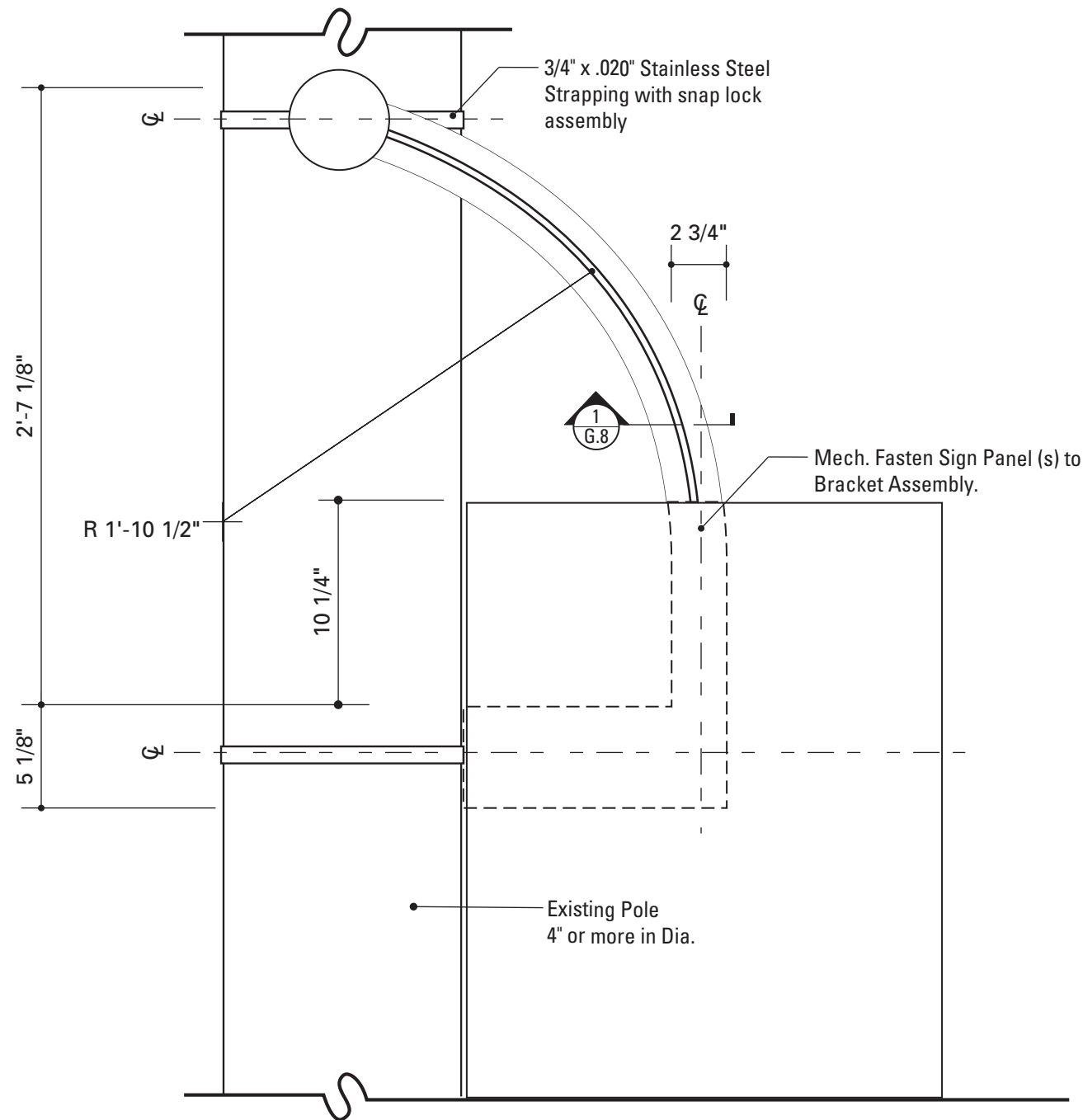
3 Section: PED.6
SCALE: 1/4" = 1"



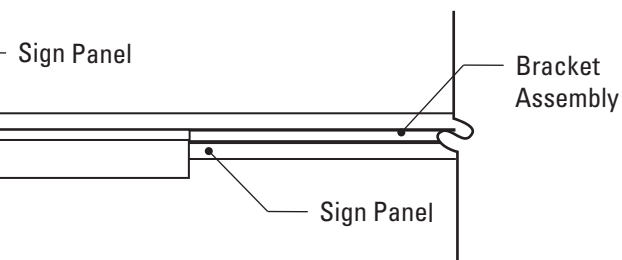
1 Section: PED.4
SCALE: FULL SIZE

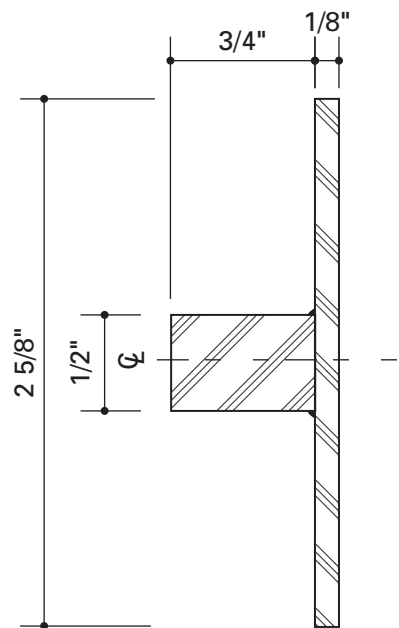


2 Plan: PED.4
SCALE: 1/4" = 1"

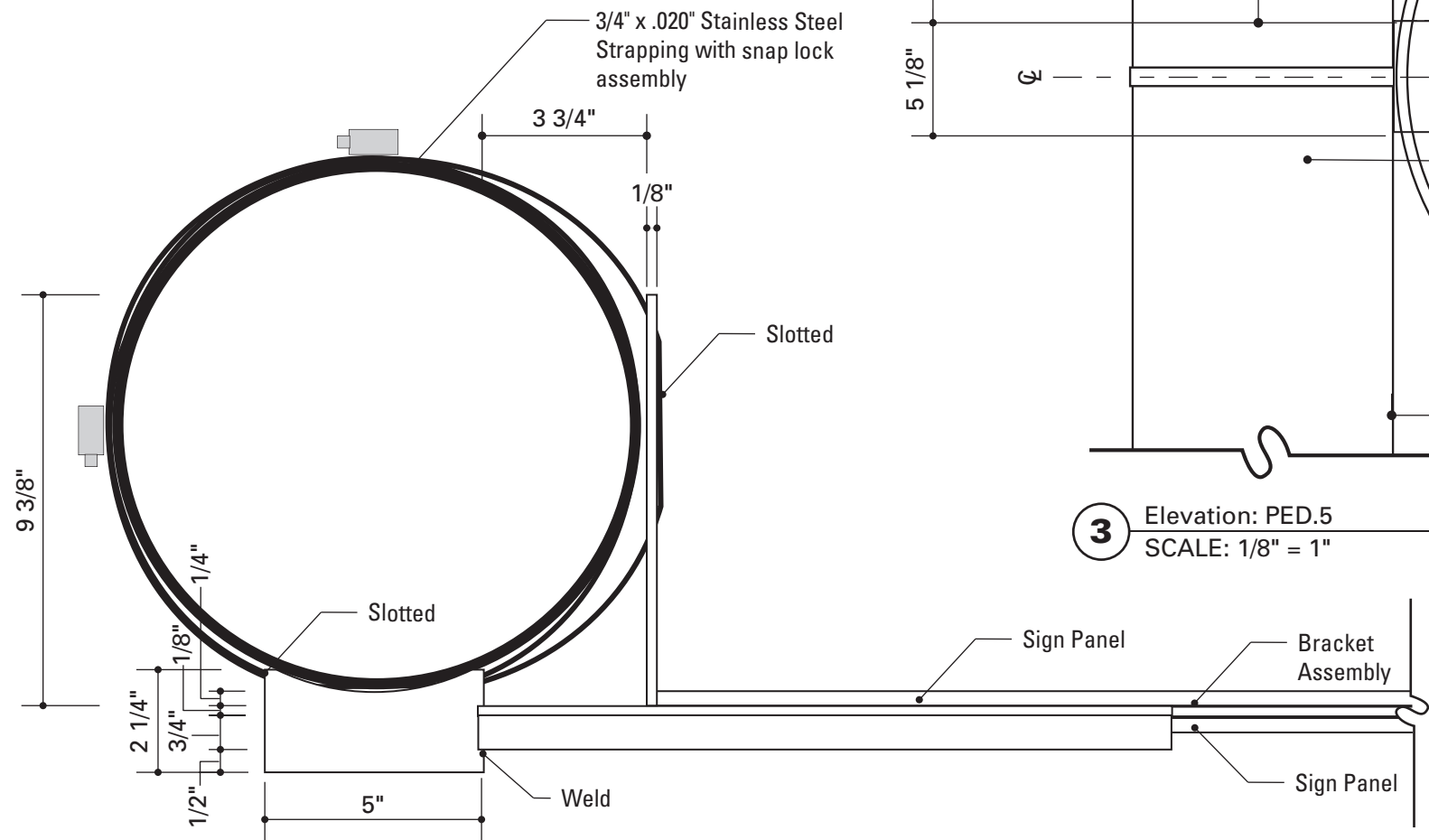


3 Elevation: PED.4
SCALE: 1/8" = 1"

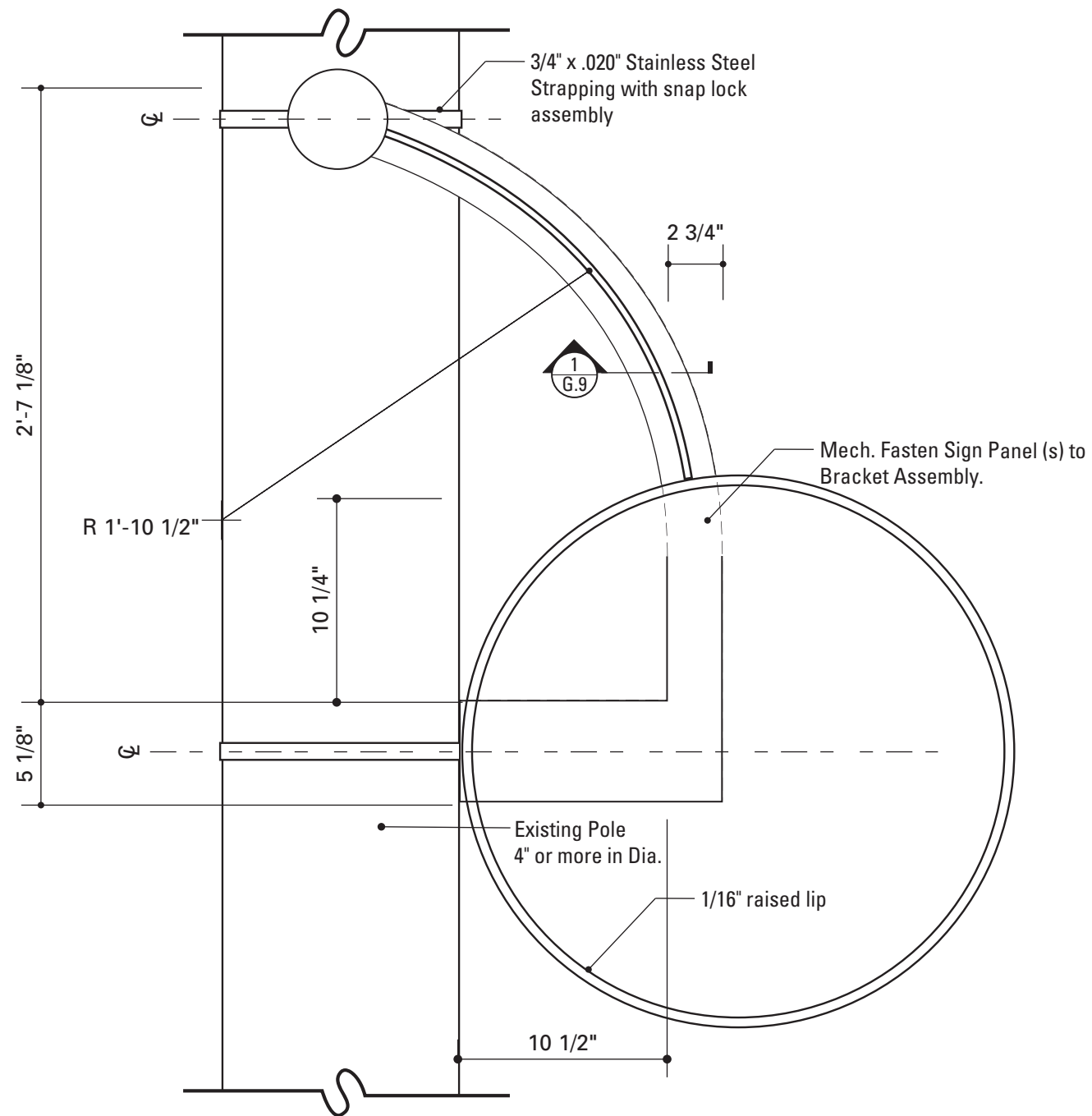




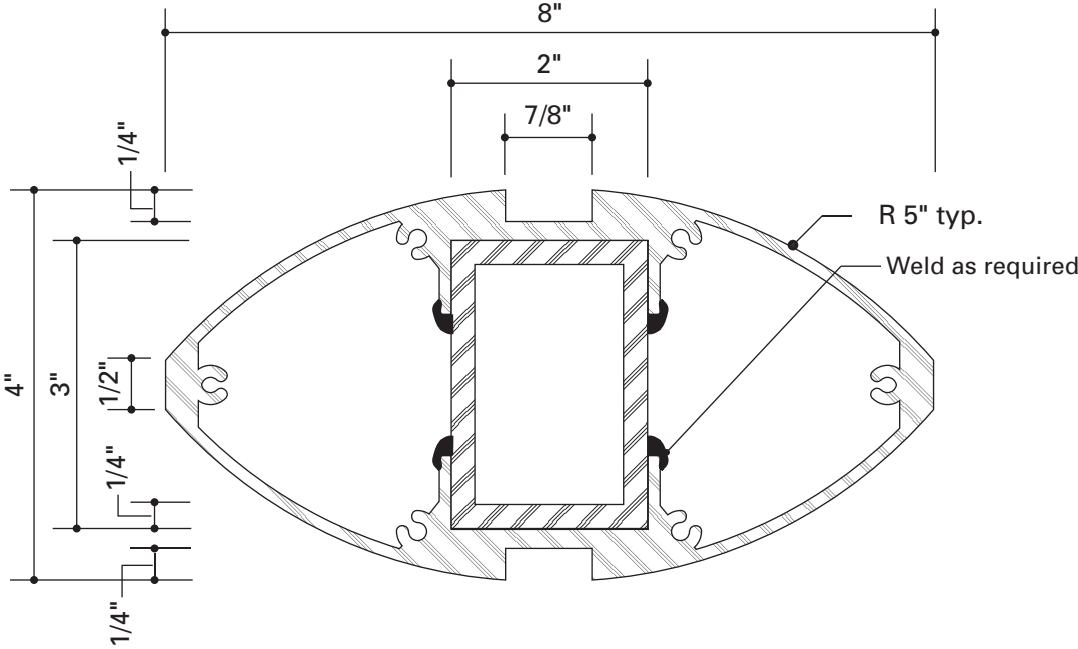
1 Section: PED.5
SCALE: FULL SIZE



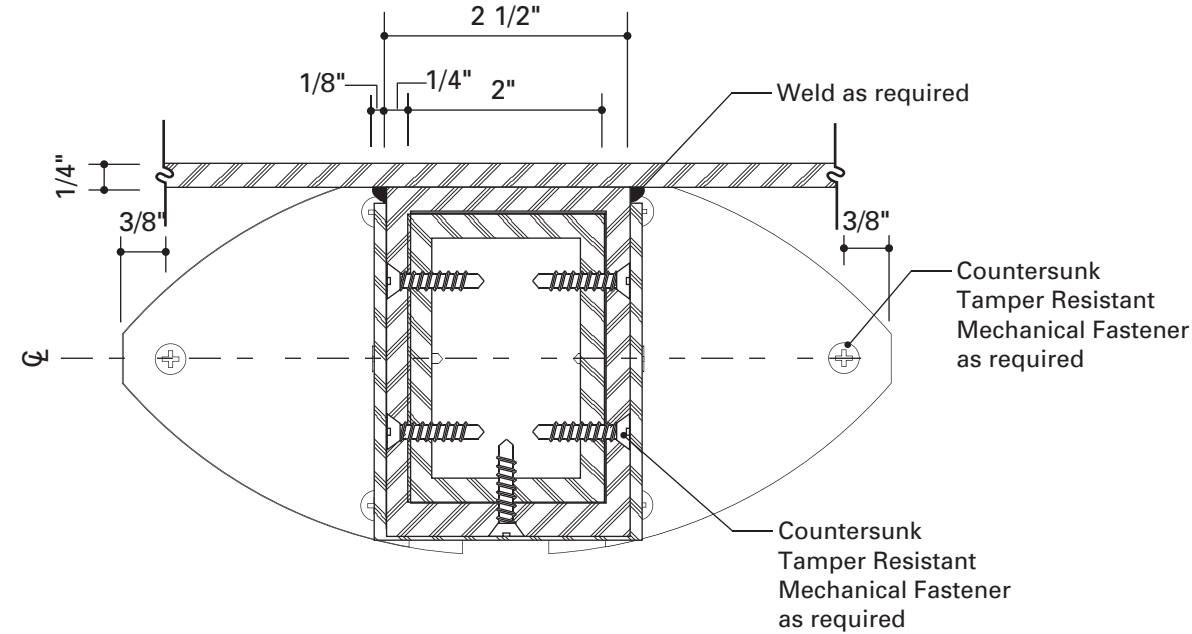
2 Plan: PED.5
SCALE: 1/4" = 1"



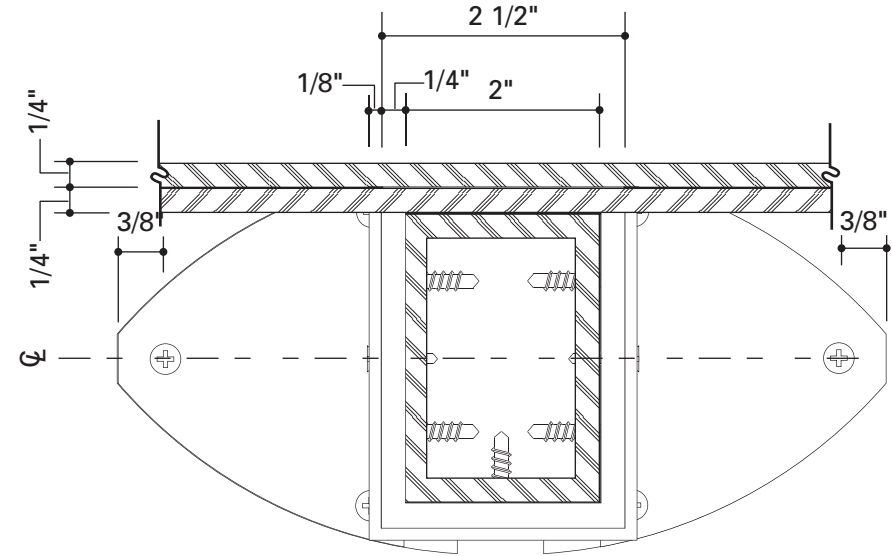
3 Elevation: PED.5
SCALE: 1/8" = 1"



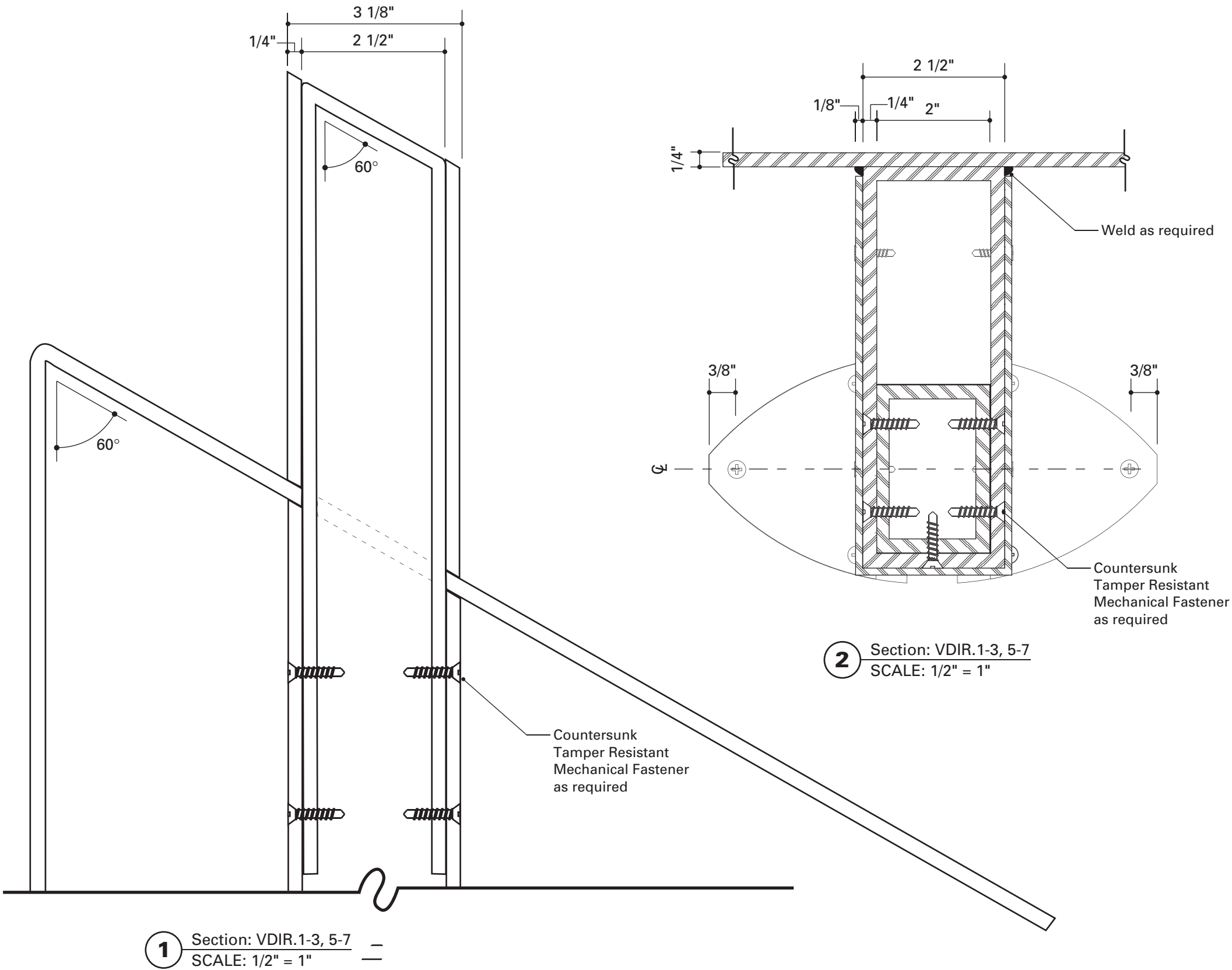
1 Extrusion Section: VDIR.1-7
SCALE: 1/2" = 1"

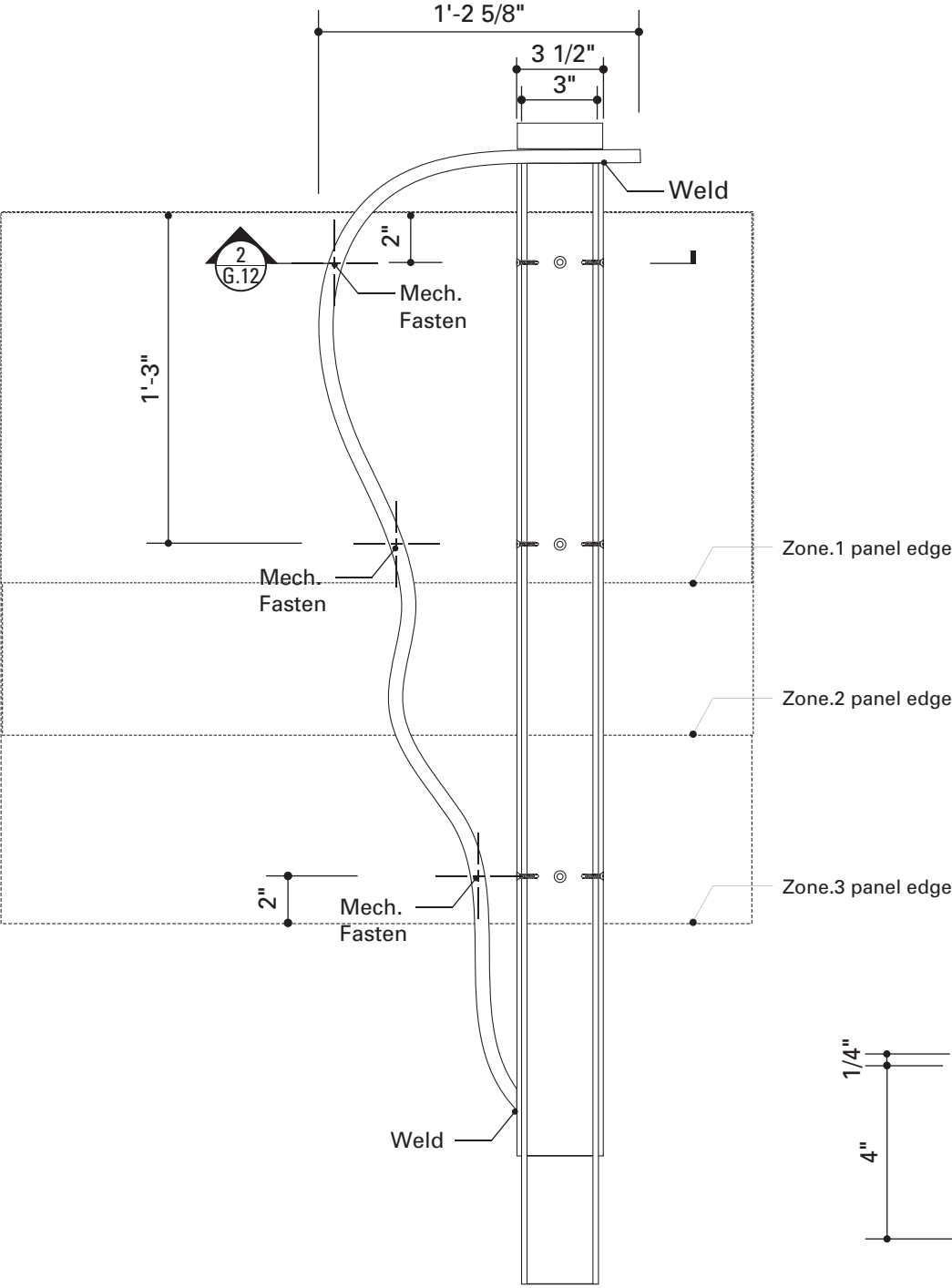


2 Section: VDIR.4
SCALE: 1/2" = 1"

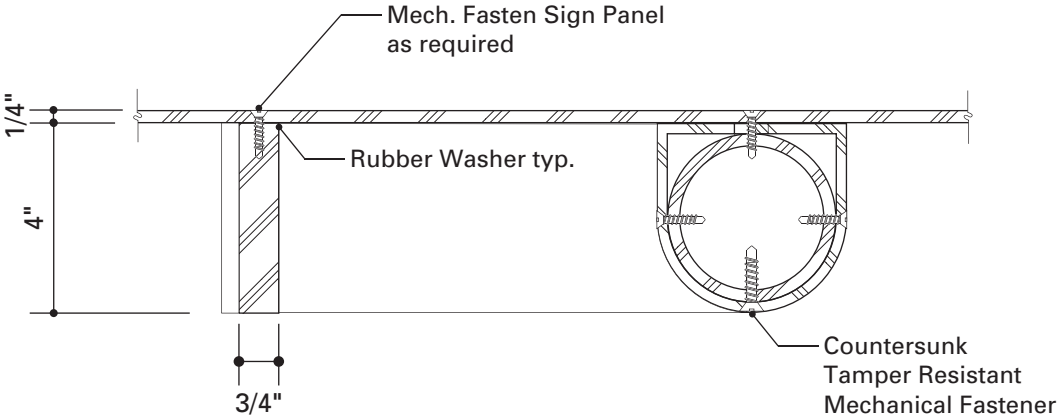


3 Section: VDIR.8
SCALE: 1/2" = 1"





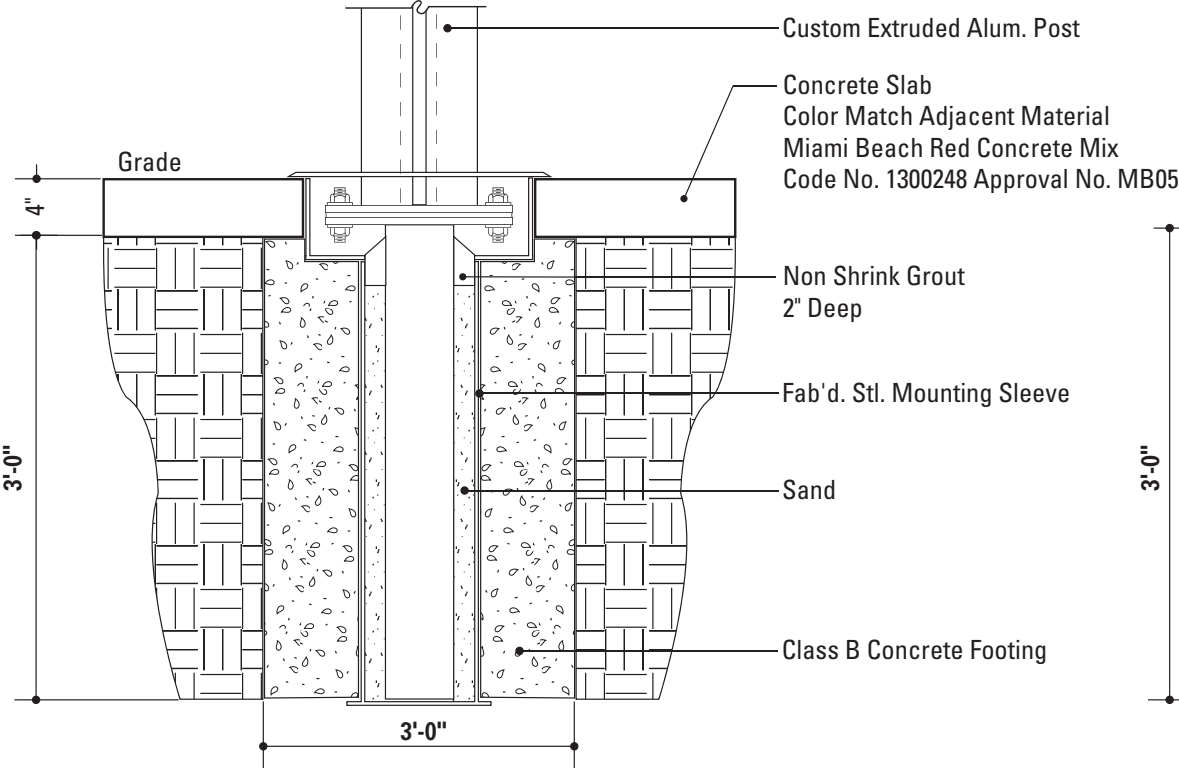
1 Section: ZONE.1-3
SCALE: 1/8" = 1"



2 Section: ZONE.1-3
SCALE: 1/4" = 1"

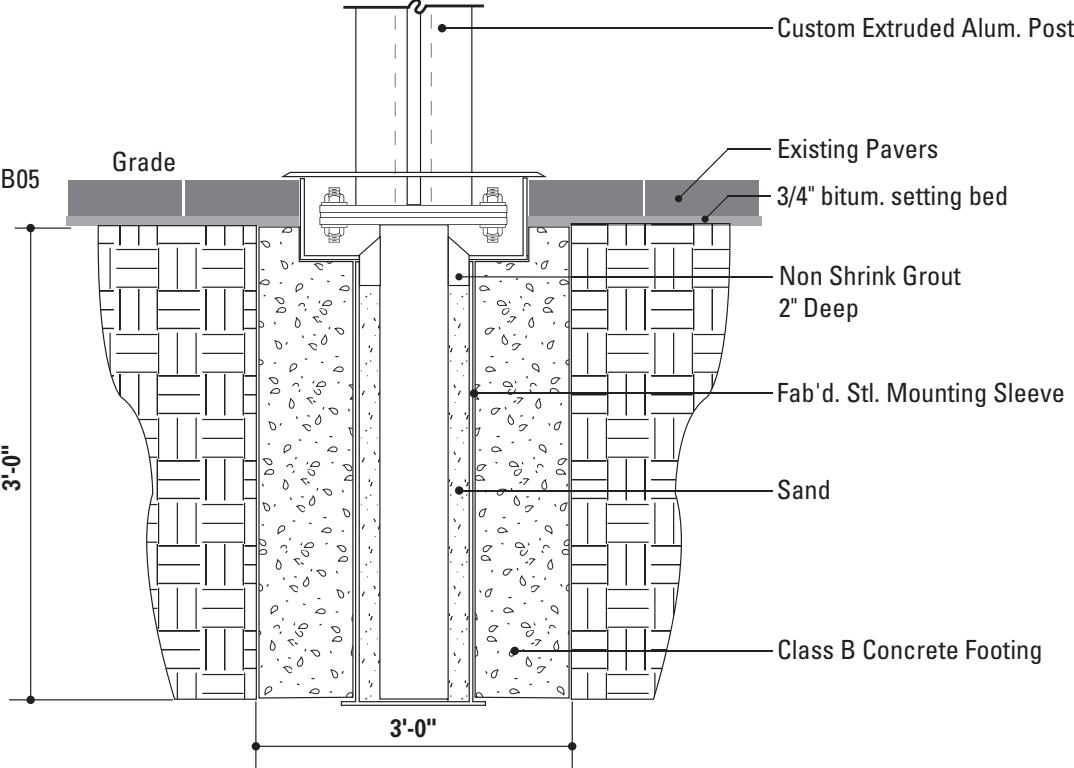
SECTION H: **FOOTER DRAWINGS**

Note: Design Wind load 300 PSF 150 MPH,
3 Sec Gust Wind, Exp C

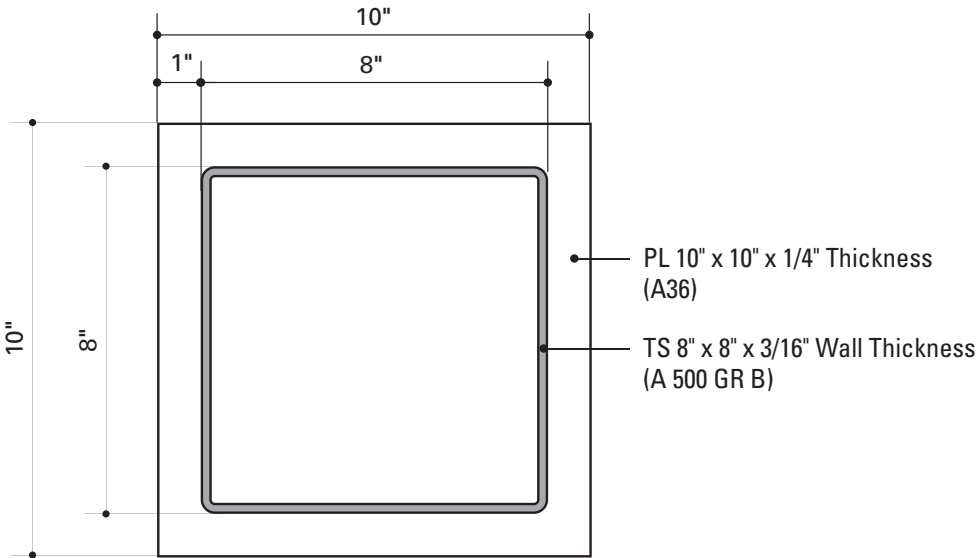


1 Section View: Sleeve Foundation: Concrete
SCALE: 1" = 1'-0"

Note: Design Wind load 300 PSF 150 MPH,
3 Sec Gust Wind, Exp C

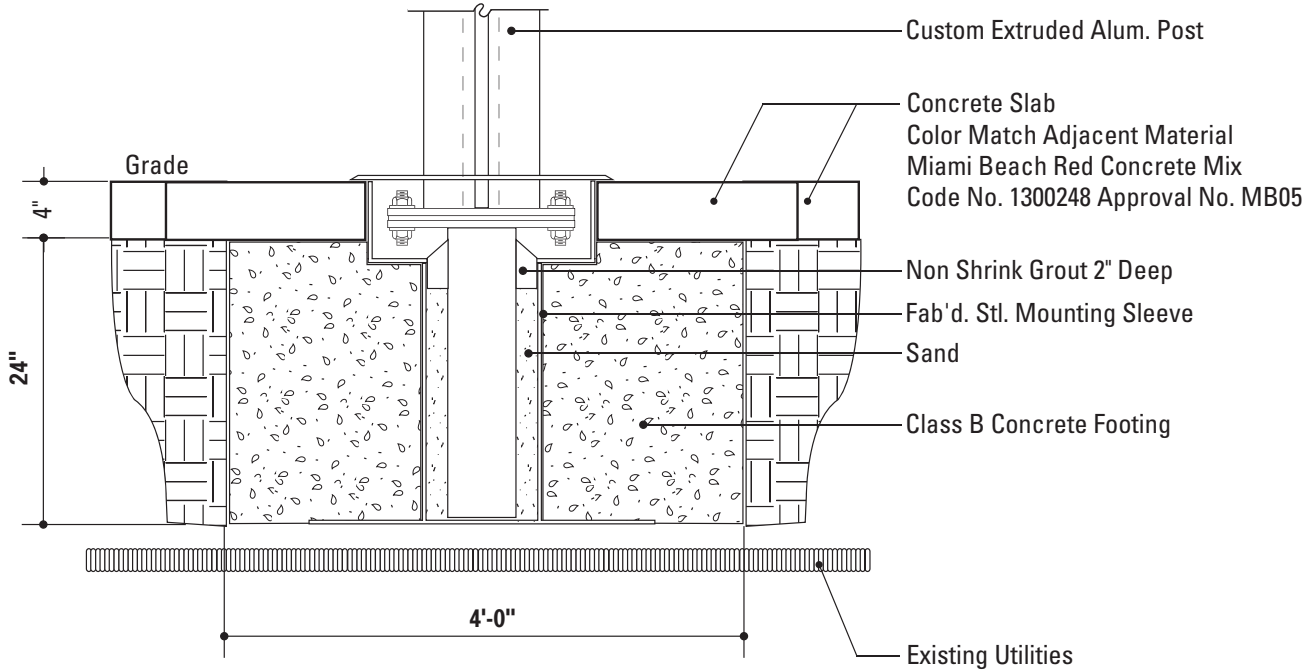


2 Section View: Sleeve Foundation: Pavers
SCALE: 1" = 1'-0"

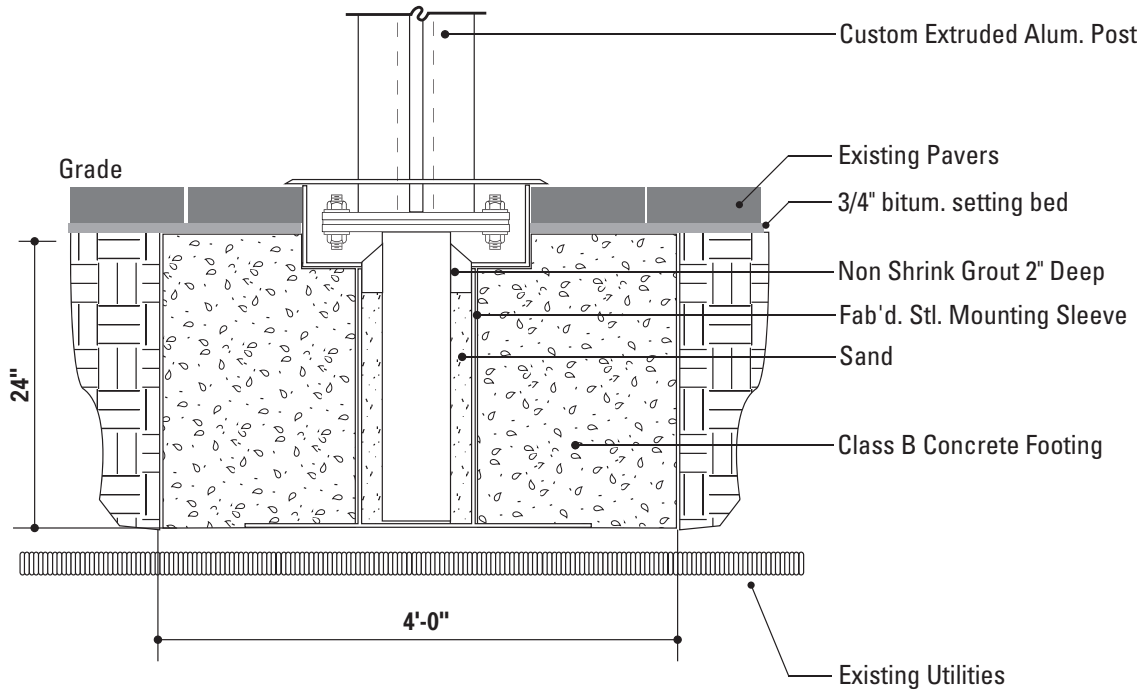


3 Section View: Sleeve Foundation: Sleeve Detail
SCALE: 1/4" = 1"

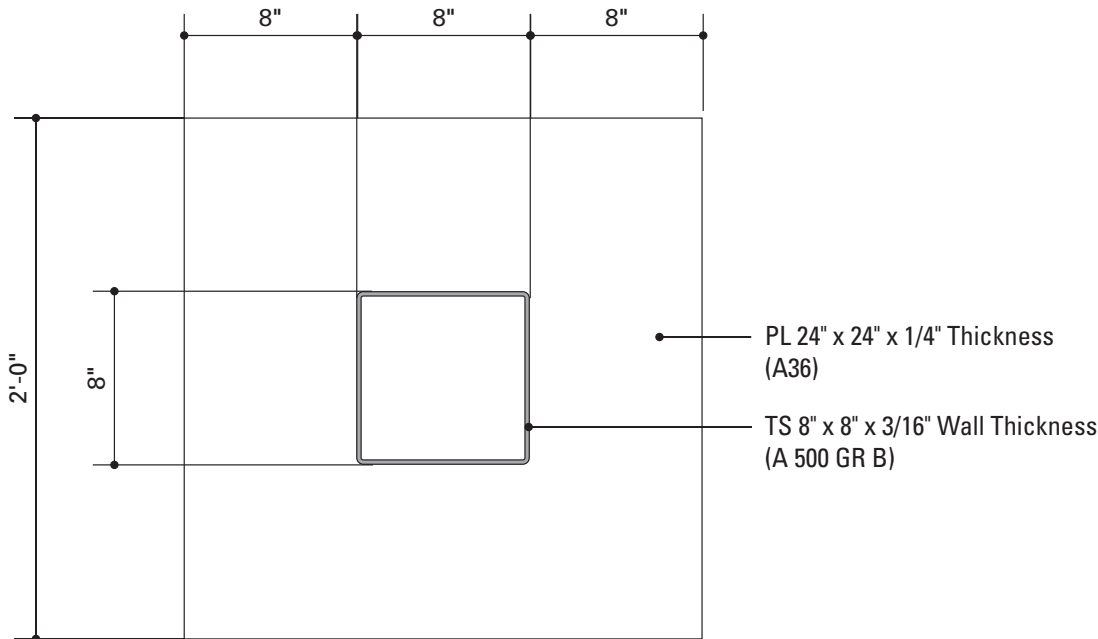
Note: Design Wind load 300 PSF 150 MPH,
3 Sec Gust Wind, Exp C



1 Section View: Sleeve Foundation: Concrete
SCALE: 1" = 1'-0"

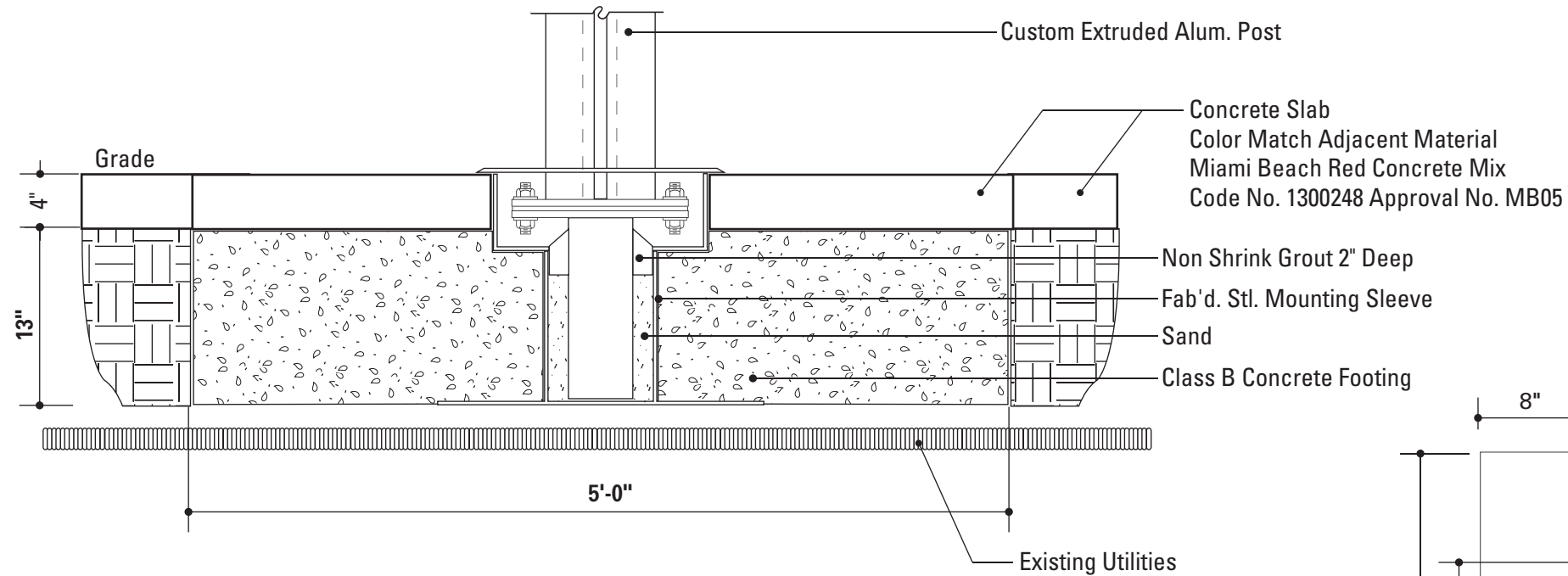


2 Section View: Sleeve Foundation: Paver
SCALE: 1" = 1'-0"

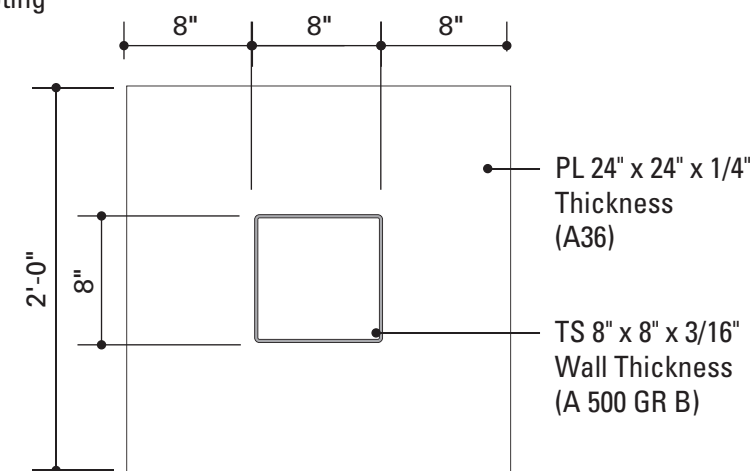


3 Section View: Sleeve Foundation: Sleeve Detail
SCALE: 1/8" = 1"

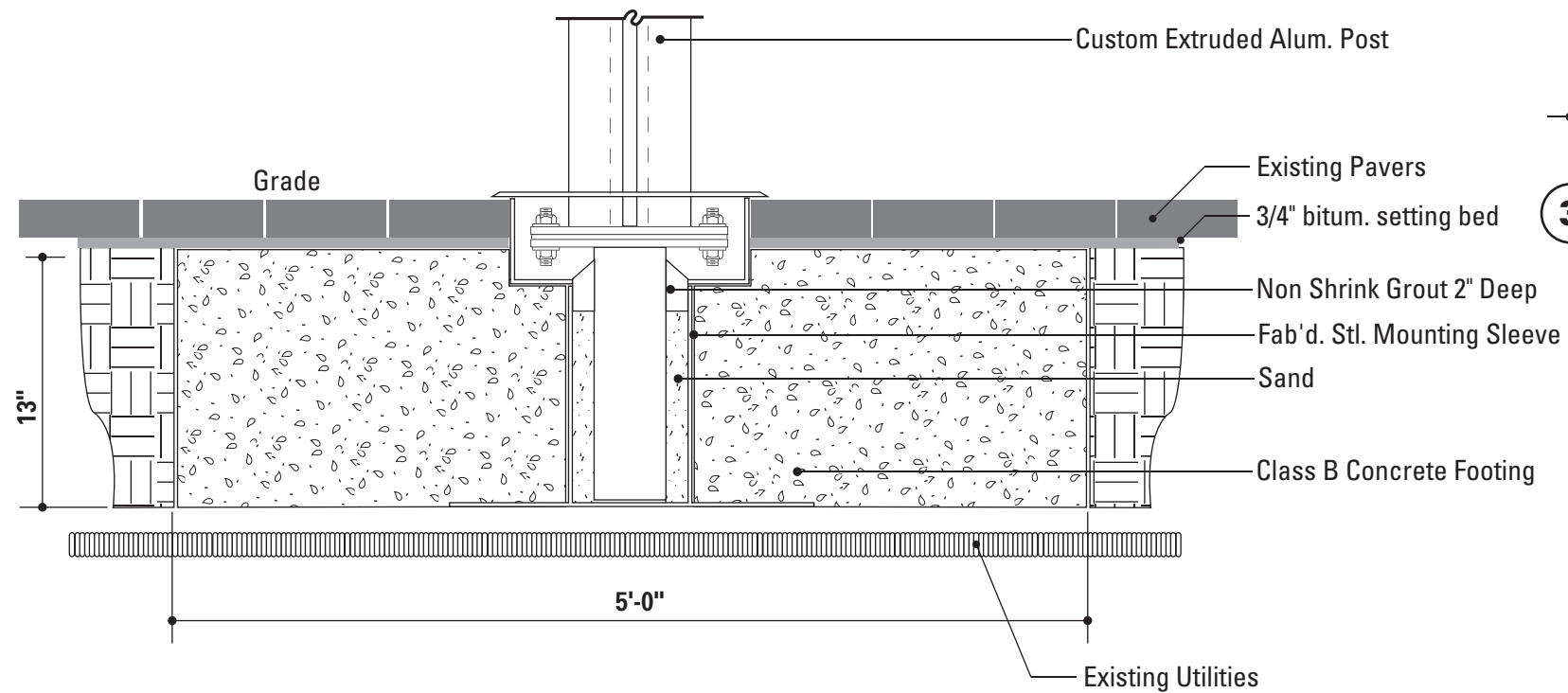
Note: Design Wind load 300 PSF 150 MPH,
3 Sec Gust Wind, Exp C



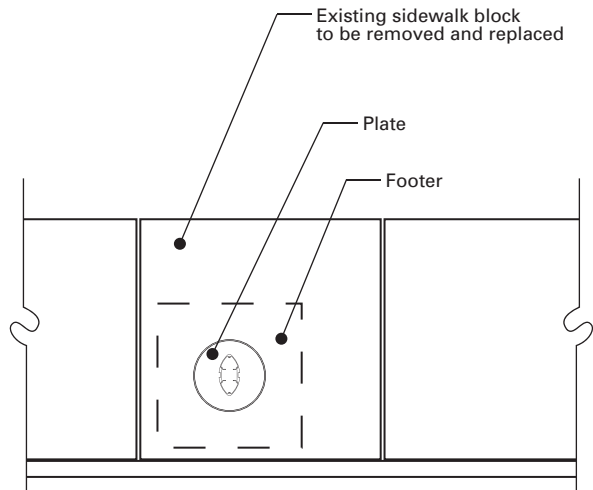
1 Section View: Sleeve Foundation: Concrete
SCALE: 1" = 1'-0"



3 Section View: Sleeve Foundation: Sleeve Detail
SCALE: 1" = 1'-0"

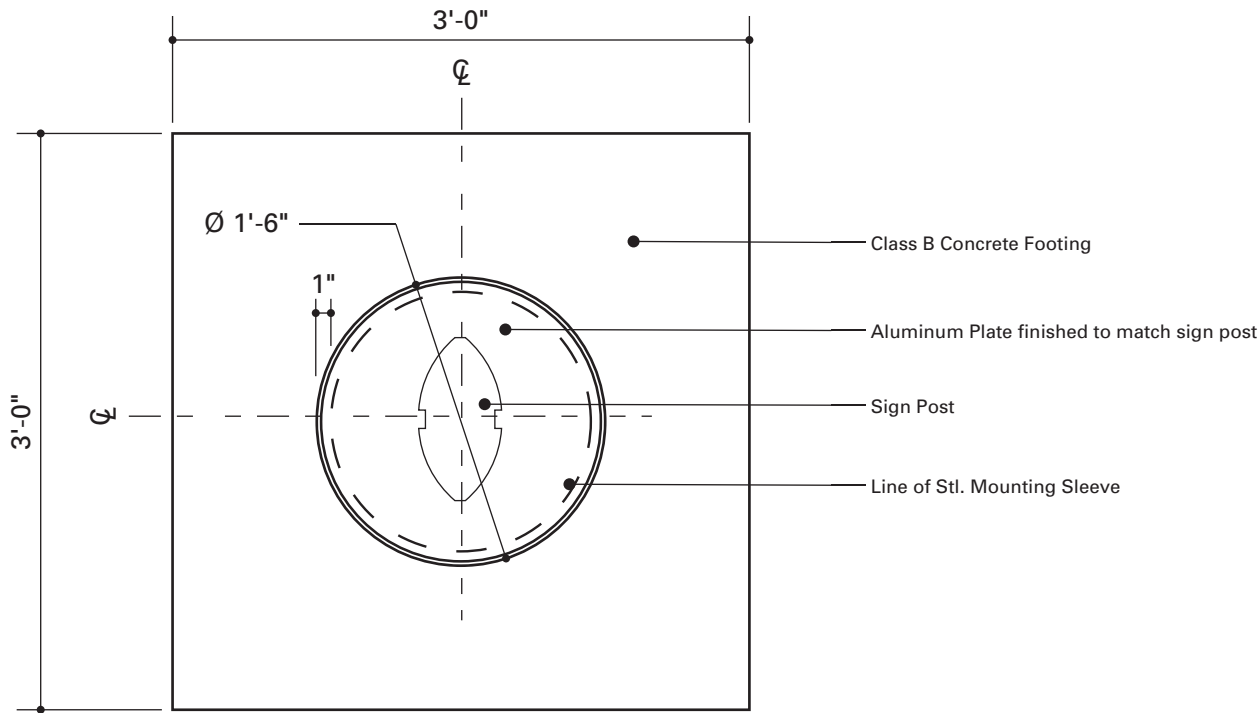


2 Section View: Sleeve Foundation: Paver
SCALE: 1" = 1'-0"

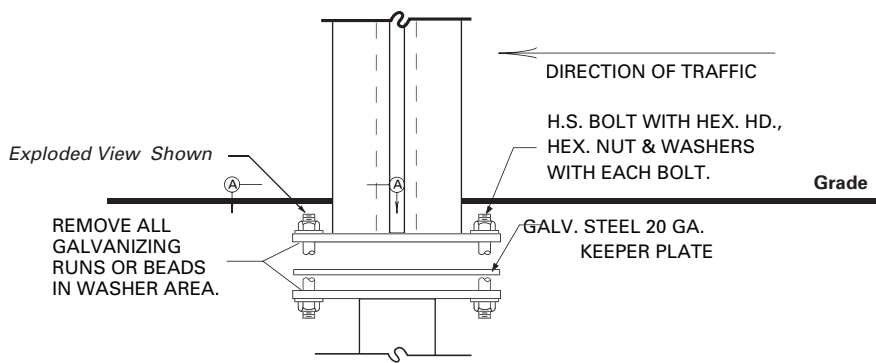


NOTE: When locating a footer within a single pavement block (max. 5'-0" x 5'-0"), adjacent to at least 2 expansion joints, the entire block of pavement shall be removed and replaced with the same materials and finish of adjacent sidewalk areas.

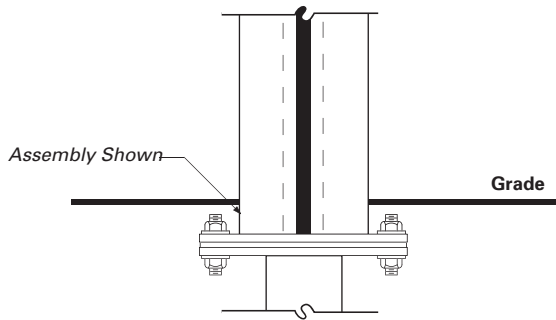
1 Plan: Footer Placement
SCALE: NTS



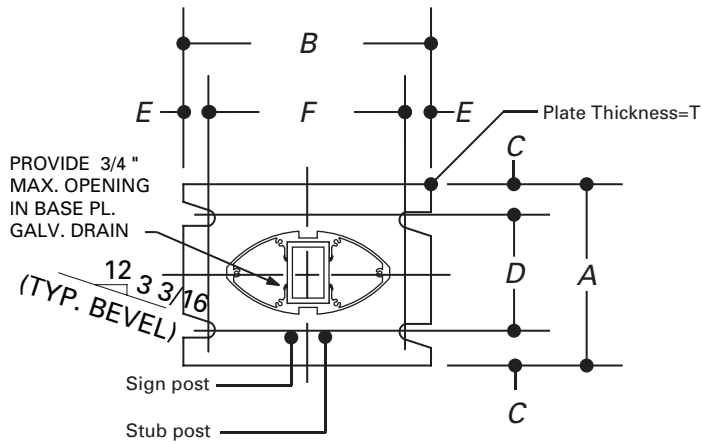
2 Plan View: Footer
SCALE: 1" = 1' - 0"



1 Section: BREAKAWAY MOUNTING
SCALE: 1" = 1' - 0"



2 Section: BREAKAWAY MOUNTING Assembled
SCALE: 1" = 1' - 0"



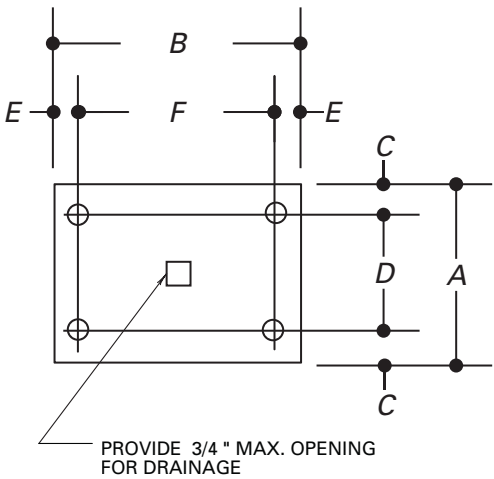
SECTION A - A

(SEE TABLE FOR DIMENSIONS)
SECTIONS SHOWN ARE FOR INSTALLATIONS ON RIGHT SHOULDER AND IN GORE. PLATE SLOT BEVELS ARE OPPOSITE HAND FROM THAT SHOWN FOR INSTALLATIONS ON LEFT SHOULDER.

3 Section A-A:
SCALE: N/A

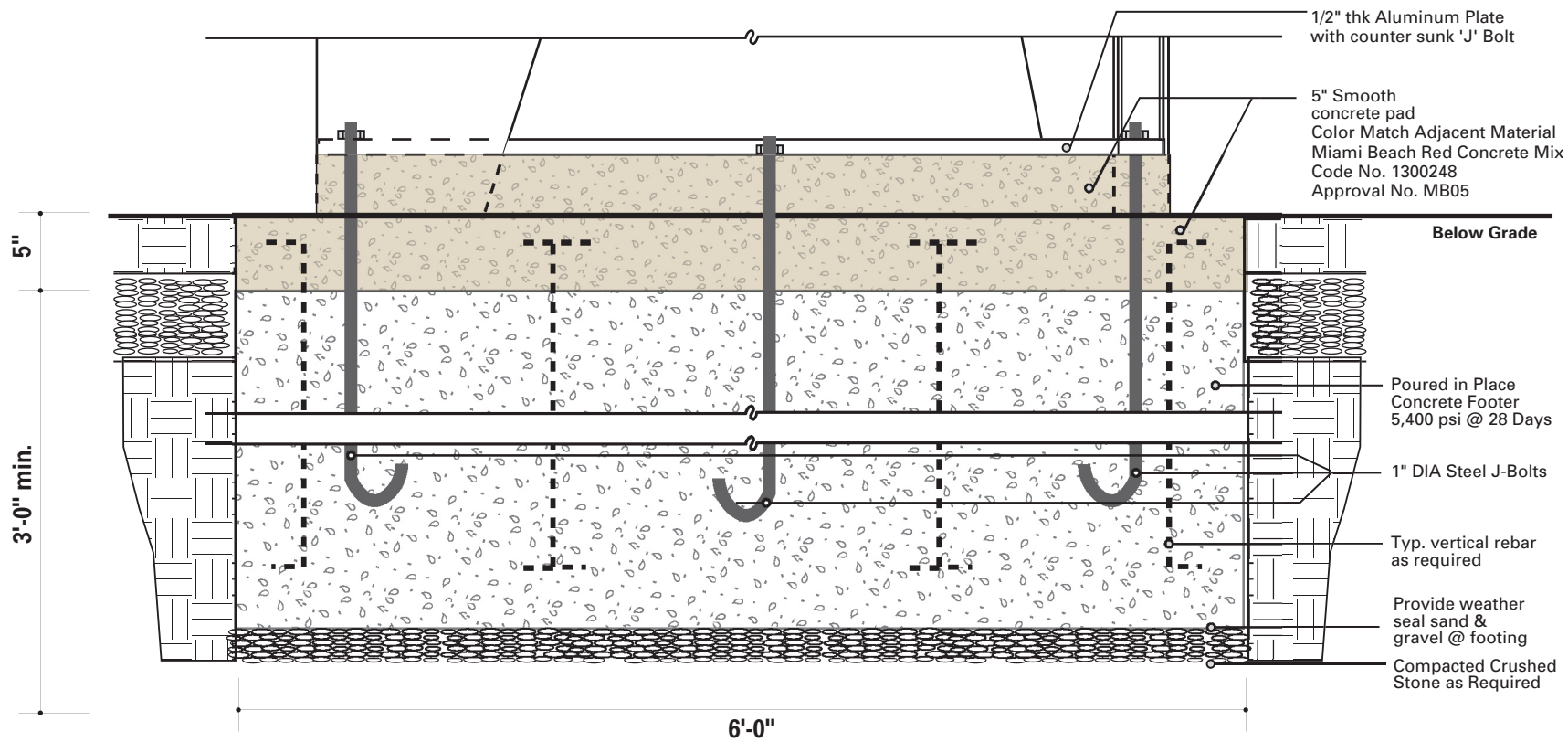
BASE CONNECTION DATA TABLE									
	PIPE SIZE	BOLT SIZE	A	B	C	D	E	F	T
Type A	8	5/8 x 2 1/2	13	13	1 1/4	10 1/2	1 1/4	10 1/2	3/4
Type B	3 1/2	5/8 x 2 1/2	9	9	1 1/4	6 1/2	1 1/4	6 1/2	3/4
Type B	5	5/8 x 2 1/2	10	10	1 1/4	7 1/2	1 1/4	7 1/2	3/4

DIMENSIONS A,B,C,D,E & F ALSO APPLY TO KEEPER PLATE.

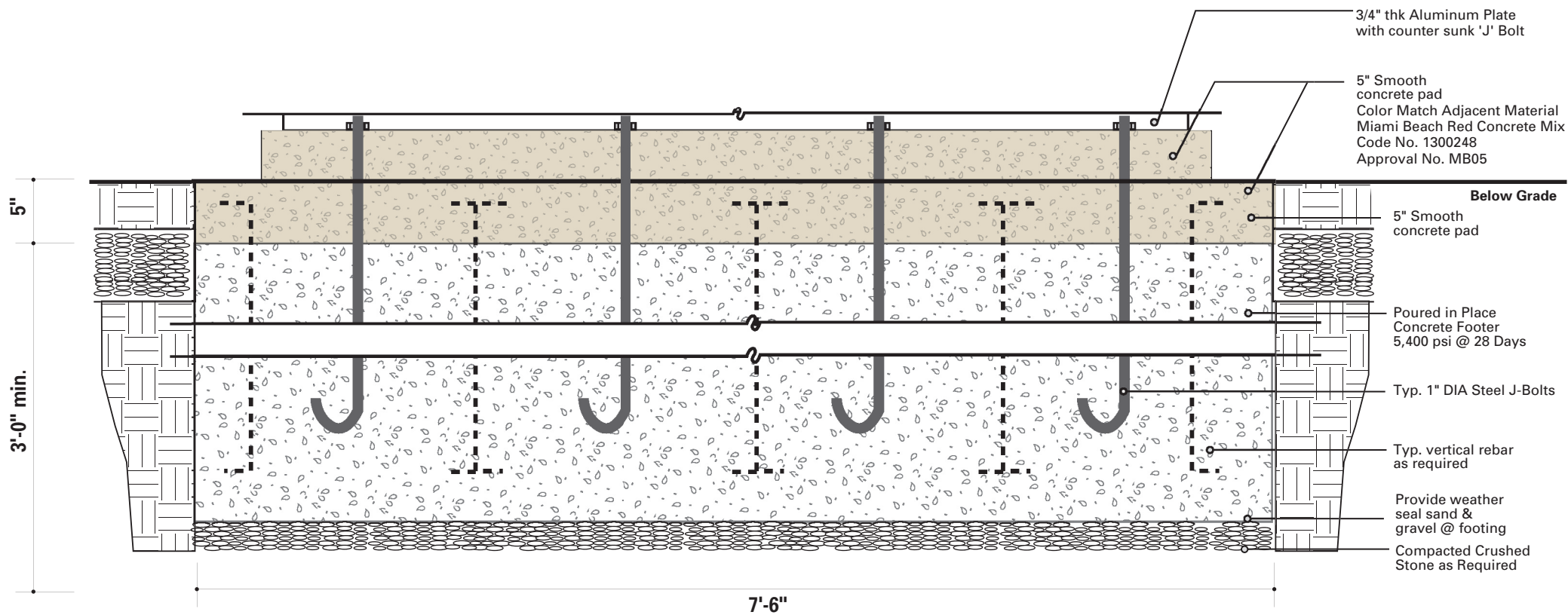


KEEPER PLATE SHALL BE FABRICATED FROM 28 GAUGE COMMERCIAL GRADE SHEET STEEL (GALV.).

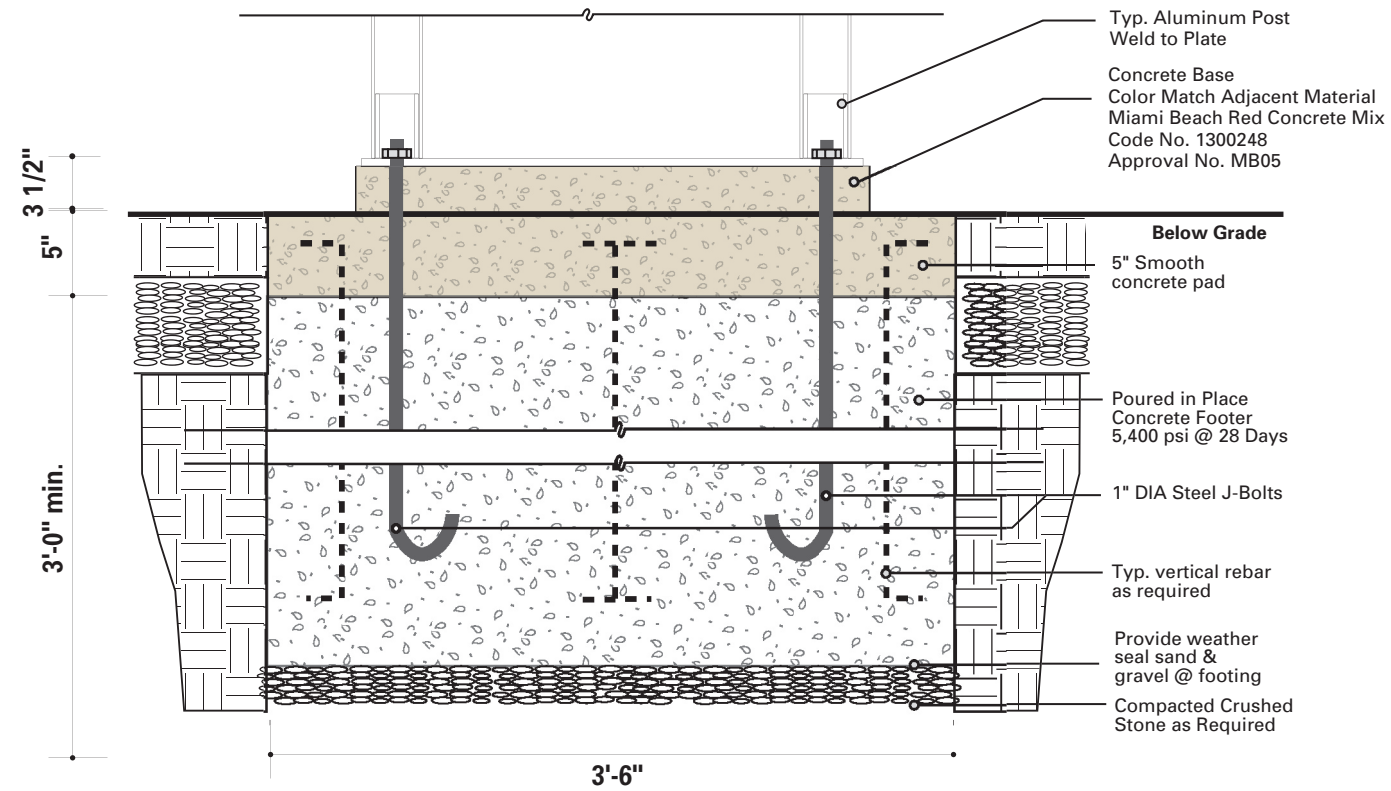
4 Keeper Plate
SCALE: N/A



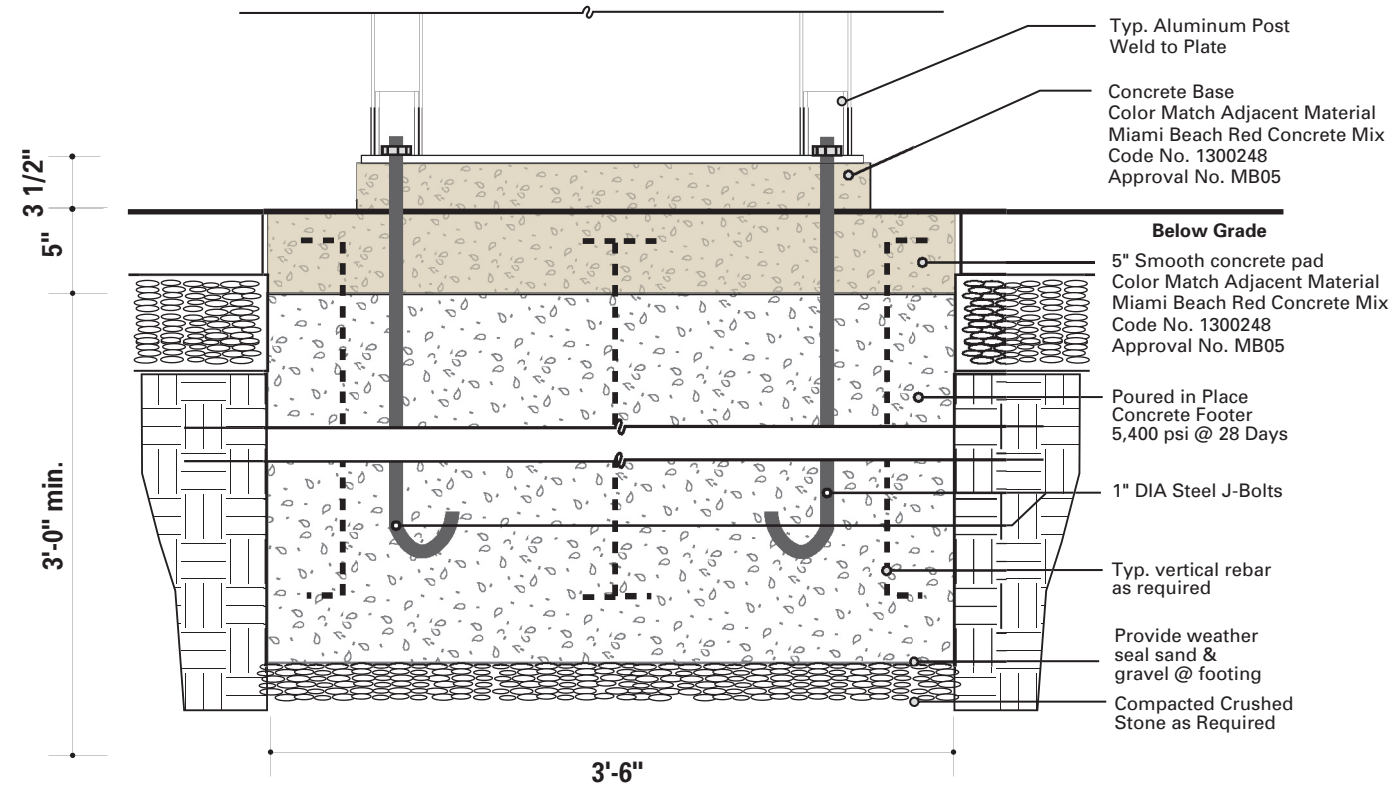
1 Section: J-Bolt MOUNTING — GATE.2
SCALE: 1" = 1' - 0"



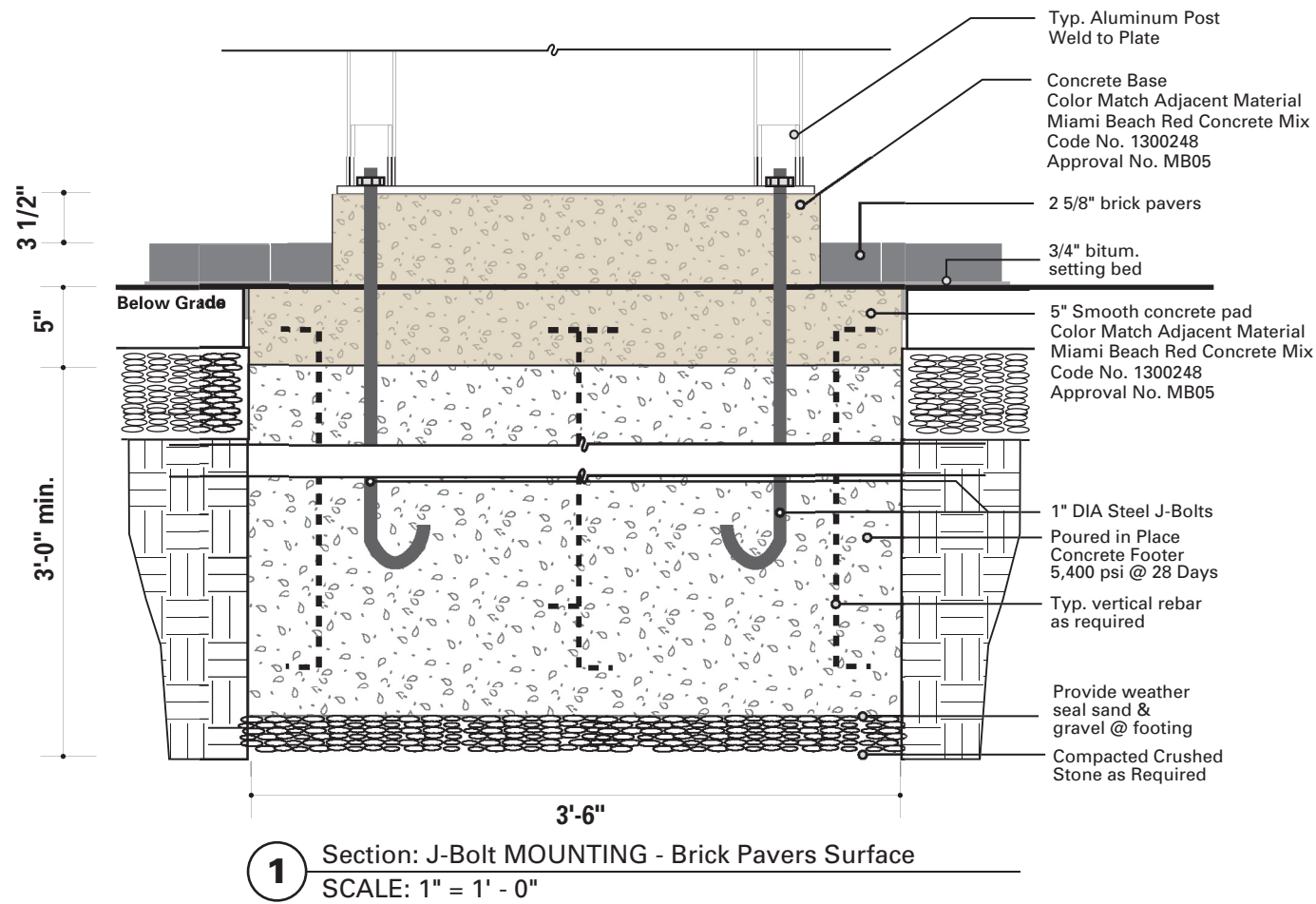
2 Section: J-Bolt MOUNTING — GATE.3
SCALE: 1" = 1' - 0"



1 Section: J-Bolt MOUNTING - Earth Surface
SCALE: 1" = 1' - 0"



2 Section: J-Bolt MOUNTING - Concrete Pavement Surface
SCALE: 1" = 1' - 0"



SECTION I: **TECHNICAL SPECIFICATIONS**

GENERAL CONDITIONS

1 . DEFINITIONS.

Addendum: Written change to the Bid Documents issued by the City of Miami Beach before award of a Contract. More than one such change is referred to as "Addenda."

Affirmative Action Implementation Plan: The plan submitted by each Bidder with its Bid in the form required by the Bid Documents as to the proposed method of compliance with the affirmative action goals of the City of Miami Beach set forth in the Bid Documents.

Application for Payment: Contractor's written request for payment of amounts due for completed portions of the Work and, if the Contract so provides, for materials delivered and suitably stored on or off the City of Miami Beach premises pending their incorporation into the Work. Each Application for Payment must be approved by the Owners Representative, the Architect and City of Miami Beach before payment will be made.

Award: The issuance of a Contract by the City of Miami Beach.

Bid: A complete and properly signed written proposal of the Bidder, submitted on the Bid Proposal Form (supplemented by additional information as appropriate) included in the Bid Documents, to furnish, deliver and install the necessary materials and to perform the Work in accordance with the Contract Documents.

Bidder: An individual, firm, partnership or corporation qualified to submit a Bid for the Contract Work.

Bonds: The Bid Bond given as Bid Security, if any, the Performance Bond and Labor and Materialman's Bond, or any other bond required by the Contract Documents.

City of Miami Beach: City of Miami Beach, also called the Owner.

Change Order: A written order to the Contractor, after the Contract is executed, authorizing a change in Contract Price, the Contract Time, or other provisions of the Contract Documents. Change Orders are not valid unless signed by the City of Miami Beach Authorized Representative

City: The City of Miami Beach or its authorized representative.

Contract: The Contract Documents form the parties' Contract for construction.

Contract Documents: May include the following:

- Invitation to Bid
- Instructions to Bidders
- Bid Form
- Drawings
- Specifications
- Affirmative Action Implementation Plan
- Agreement
- General Conditions
- Workforce Standards
- Performance Bond
- Labor and Materialman's Payment Bond
- Release
- Addenda

Contractor: The individual, firm, partnership or corporation which, as an independent contractor, and not an employee, has entered into the Contract with the City of Miami Beach.

Contract Sum: The price which the Contract states is the total amount the City of Miami Beach must pay to the Contractor as full and fair compensation for the performance of the Work required by the Contract Documents. The Contract Sum can be adjusted only by Change Order.

Contract Time: Contract Time means the total time allowed for performance of the Contractor's Work, including all time extensions authorized by Change Order. Contract Time can be adjusted only by Change Order.

Days: Unless otherwise stated, any reference to days means calendar days.

Engineer: The term "Engineer" used throughout the Contract Documents is deemed to mean any design professional engaged by the City of Miami Beach to carry out the design and documentation of the Work. The term "Engineer" may refer not only to a licensed Engineer, but also to an Architect, planner or other design professional.

Final Application for Payment: The Application for Payment made for the last payment under the Contract, including retainages. The Final Application for Payment must be approved by the Owners Representative, Architect and the City of Miami Beach before payment will be made.

Notice of Award: Written notice to the successful Bidder that the City of Miami Beach is awarding the Contract to that Bidder.

Notice to Proceed: Written notice from the City of Miami Beach to the Contractor to proceed with the Work.

Owner: The City of Miami Beach, the entity entering into the Contract with the Contractor.

Owners Representative: The person or organization retained by the Owner to monitor and administer construction for the Owner, and to facilitate communications of project participants, but not to act as the Owner's agent. See definition of "Owner's Authorized Representative."

Subcontractor: Any person, firm or corporation, other than the employees of the Contractor, who contracts with the Contractor to furnish labor or labor and materials under the Contract.

Work: The construction and services required by the Contract Documents, including all labor materials, equipment and services to be provided by the Contractor to fulfill its obligations under the Contract Documents.

Work Site: The area within which the Contractor is to perform the Work under the Contract, including areas obtained by or provided to the Contractor for use in connection with the Contract, when contiguous to the project limits.

2 . CONTRACT INTERPRETATION.

2.1 Documents The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and

what is required by one shall be as binding as if required by all. The Contractor shall perform in accordance with the Contract Documents and with all requirements reasonably inferable from the Contract Documents as being necessary to produce the intended results. In case of conflict, the most expensive combination of quality and quantity shall govern.

- 2.2 Reference Material and workman-ship specified by the number, symbol, or title of a referenced standard shall comply with the latest edition or revision thereof and amendments and supplements thereto in effect on the date of the Invitation to Bid except where a particular issue is indicated. Municipal and utility standards shall govern except in case of conflict with the Specifications. In case of a conflict between the Specifications and the referenced standard, the more stringent provision shall govern.
- 2.3 Ambiguities in Contract The Contractor shall refer any perceived ambiguity, inconsistency, or discrepancy in the Contract Documents to the City of Miami Beach for clarification. Absent such clarification, the more stringent requirement in any case shall apply.
- 2.4 Differences Between. The most recent revision of Drawings shall control over older revisions. In the event of discrepancy between any drawing and the figure written thereon, the figures shall govern over scaled dimensions.
- 2.5 Omissions and Mis-Descriptions. Before submitting its Bid to the City of Miami Beach, thereafter, the Contractor shall carefully study and compare all Drawings, Specifications and other Contract Documents; shall verify all figures on the Drawings before laying out the Work. The Bidder (and the Contractor) shall promptly notify the City of Miami Beach of all errors, inconsistencies, or omissions it may discover, and obtain specific instructions in writing before proceeding with the Work. The Contractor shall be liable to the City of Miami Beach for all costs and damages resulting from errors in construction which could have been avoided by such examination and notification, and shall correct at its own expense and without extension of Contract Time, all work improperly constructed through failure to notify the Architect and request specific instructions. Omission from the Drawings or Specifications or the mis-description of details of Work which are manifestly necessary to carry out the intent of the Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or mis-described Work (no matter how extensive) and it shall be performed as if fully and correctly set forth and described in the Drawings and Specifications at no additional expense or delay to the City of Miami Beach.
- 2.6 Verification of Dimensions and Existing Work. Before commencing work, The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents. Errors, inconsistencies or omissions discovered shall be reported to the Architect and Owners Representative at once.
- 2.7 Duty to Notify of Defects in Other Work. If any part of the Contractor's Work depends upon the work of another contractor or on existing conditions or structures in the building, the Contractor shall, before beginning that portion of the Work, report to the

Architect and Owners Representative any defects or deficiencies in the work upon which its Work depends that might affect the Contractor's Work. If the Contractor proceeds with the Work, without giving any such notice, the Contractor shall be deemed to have accepted the work of the other contractor or the existing conditions as being adequate for its purposes, and shall not be entitled to an increase in Contract Price or Contract Time for correcting any resulting defects or deficiencies in its Work.

2.8. Contractor's Responsibilities For Execution of the Work

- 2.8.1 Compliance with Contract Documents. The Contractor shall perform the Work in strict accordance with the Contract Documents. The Contractor shall not depart from the scope of the Work as defined in the Contract Documents without written authorization from the City of Miami Beach. The Contractor shall not be relieved of responsibility for deviations from the Contract Documents by the Architect's approval of shop drawings or other submittals.
- 2.8.2 Standard of Quality. The Contractor shall perform all Work in accordance in accordance with first-class construction practices, in a good and workmanlike manner, and free from defects. The Contractor shall use in the Work only materials that are new, previously unused, of first-class quality and free from manufacturing or other defect or deficiency.
- 2.9 Compliance with Laws. The Contractor shall, at all times, comply strictly with all applicable codes, regulations, statutes, laws, ordinances, regulations or rules of any governmental authority having jurisdiction over the Work or the location within which the Work takes place (collectively, "Laws") and shall obtain all approvals necessary in connection with the Work. Without limitation, the Contractor shall comply with all Laws applicable to building construction, use or occupancy, payment of subcontractors and materialmen, payment of employee wages or related taxes, health and safety Laws, environmental Laws, and applicable rules of the National Board of Fire Underwriters or any other body now or hereafter constituted to exercise similar functions.
- 2.10 Taxes. Except as otherwise provided in the Contract Documents, the Contractor shall pay all applicable taxes arising from or relating to the Work, at no further cost to the City of Miami Beach.
- 2.11 Defective Work or Materials
- 2.11.1 Workmanship or materials not conforming to the requirements of the Contract Documents are hereby deemed to be rejected, whether in place or not, and regardless of whether such materials have been expressly rejected by the Architect. Rejected materials or Work shall be immediately removed from the Work Site, and promptly replaced at the Contractor's sole expense, and without any extension of Contract Time.
- 2.11.2 If the City of Miami Beach issues a written direction to the Contractor to correct non-conforming or defective Work, and the Contractor does not comply with the direction within seven (7) days, the City of Miami Beach may, without further notice to the Contractor correct the deficien-

cies itself or through others and charge the cost of doing so to the Contractor (or deduct it from further payments to the Contractor). This remedy is without prejudice to any other remedy the City of Miami Beach may have under the Contract Documents or at law.

2.11.3 If the Contractor fails promptly to correct Work that is not in accordance with the Contract Documents, the City of Miami Beach has the right to order the Contractor to stop the Work or portions of the Work until the non-conforming Work has been corrected. The Contractor shall not be entitled to an increase in Contract Price or an extension of Contract Time as a result of any such stop work order. Any delay caused to completion of the Work by such an order shall be treated as a delay caused by the Contractor's breach. The Owner shall have no duty to stop the Work for the reasons stated in this Subparagraph.

2.11.4 The Contractor shall pay (or the City of Miami Beach may deduct from further payment to the Contractor) any extra costs the City of Miami Beach incurs as a result of additional work the Architect or Owners Representative must do to evaluate, correct, or otherwise deal with non-conforming Work by the Contractor.

2.12 Required Tests and Inspections

2.12.1 The Work may be subject to inspection and testing by the City of Miami Beach the Owners Representative and the Architect at reasonable times. Such inspection and testing is for the sole benefit of the City of Miami Beach and shall not relieve the Contractor of responsibility for performing the Work in strict compliance with the Contract Documents. Except as specifically provided to the contrary in the Contract Documents, no testing or inspection shall be construed as constituting or implying acceptance.

2.12.2 Any Work done without proper inspection or testing as required by the Contract Documents is subject to rejection. If any Work should be covered up before the required inspection or testing and approval, it must be uncovered, at the Contractor's sole expense and without extension of the Contract Time, to allow the inspection and testing, and promptly restored thereafter.

2.12.3 The Contractor shall be responsible for having performed all tests or inspections required by applicable laws as a condition of obtaining required certificates or permits or otherwise. The Contractor shall also obtain, from an electrical underwriter, in form and substance reasonably satisfactory to the Owner, certifying that all electrical work pursuant to the Contract has been completed in accordance with current electrical underwriting.

2.13 Means and Methods. The Contractor is solely responsible for the means and methods of construction and the safe performance of the Work. The Contractor shall employ only competent, skilled, reliable and honest workers for the Work, who will work in harmony with other workers on the Work Site. The City of Miami Beach may require the Contractor to remove from the Work Site any

employee whom it determines to be intemperate, incompetent, a threat to the safety of persons or property, or who fails to perform the Work in a manner acceptable to the City of Miami Beach. The Contractor shall promptly comply with any such direction and shall not thereafter employ the removed employee for the Work.

2.14 Unauthorized Work. Any work which is not in accordance with the Contract Documents is unauthorized. Any work the Contractor performs which is beyond that required or authorized by the Contract Documents shall be likewise considered unauthorized and the City of Miami Beach shall not be obligated to pay for it, under the Contract, or under a theory of quantum merit, unjust enrichment or otherwise. The City of Miami Beach may, but need not, order that any unauthorized Work be removed from the Work Site at the Contractor's sole expense and without extension of the Contract Time.

2.15 Storage of Materials. Materials delivered to the Work Site for use in the Work may be stored only in areas designated by the City of Miami Beach.

2.16 Equipment and Services. Unless provided to the contrary elsewhere in the Contract Documents, the Contractor shall provide all temporary services required to complete its Work, all tools, scaffolding, hoists, cranes or other equipment and incidental materials needed for the completion of the Work. If weather protection (including heating) or additional ventilation is required to protect workers, the Work, or the boundaries within which Work is taking place, the Contractor shall provide it.

2.17 Subcontractor Warranties. All warranties and guarantees of Subcontractors, including suppliers and manufacturers, with respect to any portion of the Work shall be obtained by the Contractor for the benefit of and in the name of the City of Miami Beach and, to the extent possible, shall be directly enforceable by the City of Miami Beach. If such warranties are not directly enforceable by the City of Miami Beach, the Contractor shall fully cooperate with the City of Miami Beach in enforcing the warranties. The Contractor shall use its best efforts to obtain from all manufacturers and suppliers guarantees and warranties upon the best terms and longest periods available. The Contractor shall cause its Subcontractors to include in their subcontracts and purchase orders the requirement that all guarantees and warranties be obtained in the name of the City of Miami Beach. The Contractor shall be jointly and severally liable for any such warranties or guarantees. To the extent that any such warranty or guaranty would be voided by reason of the Contractor's negligence or breach in incorporating material or equipment into the Work, the Contractor shall be responsible for correcting such defect and shall be responsible pursuant to the guarantee obligations set forth herein.

2.18 Hazardous Materials

2.18.1 The Contractor shall not bring onto the Work Site or use in the Work any hazardous or toxic materials, such as asbestos, asbestos products, or polychlorinated biphenyl. If the Contractor discovers that any materials or processes specified in the Contract Documents would require use of such hazardous or toxic materials, it shall inform the Architect and

Owners Representative immediately.

2.18.2 If the Contractor encounters materials on the Work Site which the Contractor believes to be toxic or hazardous, which have not been placed on the Work Site by the Contractor, which have not been rendered harmless, and for which no express provision has been previously made in the Contract Documents, the Contractor shall stop work in the affected area and immediately report the condition to the Project Manager and Architect. Work in the affected area shall be resumed when the condition is identified as not toxic or hazardous, or when the condition has been remediated by the City of Miami Beach.

2.18.3 The Contractor shall not spill or release oil, solvents, or other chemical substances onto the Work Site. If such releases do occur, the Contractor shall promptly report them to the Owners Representative, and shall be responsible for removing and cleaning up the spilled or released substances in a legally proper manner, at the Contractor's own cost, and for paying any costs the City of Miami Beach incurs as a result of the spill or release. This responsibility shall exist whether or not the Contractor has been negligent.

2.19 Clean-Up. The Contractor shall keep the Work and all of the Work Sites safe, clean, and reasonably free from trash or debris at all times. The Contractor shall arrange for prompt removal and legal disposal of all rubbish, packing materials, scrap, rubble, and other waste material from the Work Sites. Flammable materials and chemicals or other hazardous substances will be removed from the Work Sites at the end of each day, or when they are no longer needed at the Work Sites, whichever comes first. As soon as practicable after Final Completion, the Contractor shall remove all of its project offices, equipment, tools, temporary fences, barriers, scaffolding, and other material from the Work Sites, and leave the Work Sites broom clean and free of all construction-related debris or trash.

2.20 Record Drawings. The Contractor and each Subcontractor shall keep on file at the Work Site one complete copy of the Drawings and Specifications, in good order and marked currently to record all changes, revisions and additions made during the construction, whether pursuant to field order or otherwise, and the location and detail of Work installed on a field run basis, as well as a complete set of approved shop drawings and Change Orders ("collectively, the Record Drawings"). The Record Drawings shall be made available for review by the City of Miami Beach and Architect at all times. One (1) complete set of the Record Drawings shall be delivered to the City of Miami Beach after Final Completion of the Work, and as a condition precedent to Final Payment.

2.21 Use of Premises. The contractor shall not use any portion of the Premises for any purpose other than prosecution of the Work.

3 . SHOP DRAWINGS, SAMPLES, AND OTHER SUBMITTALS.

3.1 Requirement of Prompt Submittal. The Contractor shall submit to the Architect for review shop drawings, product data, samples and similar submittals required by the Contract Documents with reason-

able promptness and in such sequence as to cause no delay in the Work, the City of Miami Beach 's activities or the work of separate contractors.

3.2 Work to Conform with Submittals. The Contractor shall perform no Work requiring submittal and review of shop drawings or other submittals until the submittals have been approved by the Engineer. Work shall be performed in accordance with approved submittals.

3.3 Contractor's Representation. By submitting shop drawings or other submittals, the Contractor represents that it has determined and verified materials, field measurements and field construction criteria related thereto, and has checked and coordinated the information contained in the submittals with the requirements of the Work and the Contract Documents.

4 . CHANGES/CHANGE ORDERS.

4.1 Right to Make Changes. The City of Miami Beach may, without invalidating the Contract, and without prior notice to the surety, order changes in the Work, including additions, deletions or modifications. Any such change may be made ONLY by written Change Order executed by the City of Miami Beach 's Authorized Representative. Neither the Contract Time nor Contract Sum may be changed except by such a Change Order. The Architect is NOT authorized to execute Change Orders or to bind the City of Miami Beach to any change to the Contract Documents.

4.2 Entitlement to Contract Adjustment. The Contractor is entitled to an adjustment to the Contract Time or the Contract Price if it has complied with the notice and documentation provisions of this Article and if:

4.2.1 the Owner issues any directive which changes the work so that the cost of performing the Work or the time within which the Work can be completed is materially affected;

4.2.2 the site or as-built conditions differ materially from those which the Contractor knew, or which it should have discovered as a result of its pre-construction site and document investigation, and the difference will materially increase the cost or time of performance;

4.2.3 there is any material error, omission or inconsistency in the plans and specifications which the Contractor did not discover and could not reasonably have discovered in carrying out its obligations under Paragraphs 2.3, 2.6 and 2.7, and which materially increases the cost or time or performance;

4.2.4 the Contractor's performance is delayed, because of any event which was not anticipated when the Contract was executed, which is beyond the reasonable control of the Contractor, and which is not otherwise limited by the Contract Documents.

The City of Miami Beach is likewise entitled to deductive

Change Orders when changes are made that will decrease the cost of completing the Work.

- 4.3 Notice of Change. The Contractor shall notify the Owners Representative and Architect, in writing, within three (3) days of receiving a directive, or discovering any condition, which it believes will materially affect the cost of completing the Work or the time within which the Work can be completed. The Contractor shall submit a written request for Change Order within seven (7) days of its written notice of change. The request shall set out, in reasonable detail, the reasons for the requested adjustments, and shall state the number of additional days sought and/or the amount of any increase in compensation sought. The Owners Representative may request, and the Contractor shall provide, further cost breakdowns, clarifications, documentation or back-up if the City of Miami Beach reasonably believes that such additional information is needed to understand and evaluate the request.
- 4.4 Change Orders. After receiving a request for Change Order, the City of Miami Beach will promptly render a decision as to whether it agrees that the Contractor is entitled to adjustments in Contract Time, Contract Price or both. If the Contractor has provided unit prices in submitting its bid, and the Owner has accepted such unit prices, then all adjustments in Contract Price with respect to the change by the stated unit price. In all other cases, the City of Miami Beach and the Contractor will agree upon the appropriate adjustments and the resulting agreement shall be set forth in a written Change Order and signed by both the City of Miami Beach and the Contractor. The Contractor's execution of a Change Order will be its representation and agreement that the Change Order constitutes its full and final adjustment for all costs, schedule impacts, or other consequences arising from the change in question, and that no further adjustments in Contract Time or Contract Price will be sought or due with respect to the change.
- 4.5 Delay or Disruption. The Contractor shall be entitled to recover damages for delay or disruption ONLY if the delay or disruption was caused solely by the action or inaction of the City of Miami Beach or its representatives, and the Contractor establishes that, but for the delay, it would have been able to complete its work on time. Damages for delay shall exclude all costs attributed to home office costs or overheads, whether calculated by the Eichleay formula or otherwise, and all costs attributed to lost profits, opportunity costs, other business forgone, or similar costs. Such costs shall not be recoverable, regardless of the cause of the delay or disruption..
- 4.6 Duty to Continue Work. If the Contractor and City of Miami Beach do not agree that any adjustment sought by the Contractor is justified, or if the parties fail to agree upon the appropriate amount of the adjustment in Contract Time or Contract Price, the Contractor shall nevertheless proceed with the Work, and shall promptly make a written claim.
- 4.7 Waiver of Right to Adjustment. If the Contractor fails to notify the City of Miami Beach in accordance with Paragraph 5.3, of any action or event which it claims materially affects the cost of completing the Work or the time within which it can be completed, the Contractor shall be deemed to have waived its right to any adjustment in the Contract Price or Contract Time as a result of the action

or event in question. In such a case, the Contractor shall also be deemed to have waived any claim additional time or compensation under theories of quantum merit or unjust enrichment or negligence.

5 . SUBCONTRACTORS.

- 5.1 Contractor Responsible for Subcontractor Work. The Contractor may retain Subcontractors to perform portions of the Work. However, the Contractor shall be fully responsible for Work performed by Subcontractors, as if it had been performed by the Contractor itself.
- 5.2 Contract Requirements Apply. All Subcontractors must agree that they have the same duties and obligations to the Contractor as the Contractor has to the City of Miami Beach under this Contract.
- 5.3 No Third-Party Rights. The Subcontractors shall have no rights against the City of Miami Beach, either under a third-party beneficiary theory or otherwise.
- 5.4 Insurance. The Contractor shall require all Subcontractors to obtain and maintain throughout the duration of the Work, insurance of the types and limits stated in paragraph 11 of the General Conditions. No Subcontractor will be permitted to perform any Work until the Contractor has provided the City of Miami Beach, and any additional insureds, with evidence that the Subcontractor has obtained the required insurance.

6 . PROJECT SECURITY AND SAFETY REQUIREMENTS.

- 6.1 Continued Occupancy of Owner. The Contractor shall be responsible for the protection and security of those portions of the Work Site that have been turned over to it for construction and for the protection and security of all materials, supplies and construction equipment, whether on or off the Work Site. The Contractor acknowledges that the Work Site, or areas of the building within which the Work is being done, may be occupied by the City of Miami Beach or other members of the public during the course of the Work, and agrees to take all reasonable security measures to protect the people and property on the Work Site from injury and damage, and to exclude from areas under construction persons who are not authorized to be in those areas. The Contractor shall comply with the City of Miami Beach 's directions concerning areas within which it must confine its activities so as to avoid injury to persons and interference with operations.
- 6.2 Safety. The Contractor shall provide and maintain all safety devices or measures required by any applicable laws, regulations, ordinances, or rules, by the City of Miami Beach 's insurers, or reasonably required by Project conditions, for the protection of the health and safety of all persons who may come onto the Work Site, and for the protection of property from damage due to the Work. The Contractor shall promulgate and enforce safety regulations for its workers and Subcontractors. Among other things, the Contractor shall
- 6.2.1 comply with all applicable laws, regulations, ordinances,

rules, regulations or orders of any public authority (federal, state or local) as they relate to the health or safety of persons or protection of property,

6.2.2 submit to the City of Miami Beach, before performing any work on the Work Site, a written safety program in full compliance with the requirements of this Article and which is consistent with applicable federal, state, and local laws, regulations, rules, regulations or orders, and

6.2.3 implement all practices, procedures and programs customarily implemented by construction contractors for projects of a similar nature.

6.3 Damage to Site on Which Work Is Carried Out. The Contractor shall be liable to the City of Miami Beach for any damage it causes to the Work or to the site or buildings in which the Work is being carried out. Until Final Completion, the Contractor shall protect all of its Work and shall not damage the work of other contractors or the property of the City of Miami Beach. The Contractor shall pay for any such damage, and the City of Miami Beach may withhold from further payments to the Contractor amounts reasonably attributable to any damage to the Work or to other property.

6.4 Responsibility for Materials and Work

6.4.1 The Contractor shall remain solely responsible for materials delivered and Work performed until Final Completion of the Work, except those materials and Work that may have been accepted pursuant to Subparagraph 7.4.3 of the General Conditions. The Contractor remains responsible for punch list Work until it is approved and accepted by the City of Miami Beach. The Contractor shall bear the risk of loss for any damage, however caused, to the Work or to tools, materials and equipment, until Final Completion of the Work or acceptance of Work.

6.4.2 The Contractor shall, at its own cost, promptly rebuild, repair or restore Work that has been destroyed or damaged before Final Completion.

6.4.3 The City of Miami Beach may, by written notice and at its own sole discretion, relieve the Contractor of the duty to maintain and protect certain portions of the Work, and of the risk of loss with respect to that Work. Any such notice shall not act to discharge the Contractor's obligation to repair or replace defective Work or Work that does not conform with the Contract Documents. Any such notice shall not operate to relieve the Contractor or its obligation safety obligations or its responsibility, under any provision of the Contract Documents, for death, personal injury, or property damage, or from the Contractor's indemnity obligations.

7 . DUTY TO COORDINATE WITH OTHER CONTRACTORS ON SITE

7.1 Duty Not To Interfere. The Contractor shall not unreasonably impede, hinder or delay the work on any other contractor which the City of Miami Beach or others may have performing work on the Work Site. The Contractor shall cooperate with any contractor who

will be performing work that may connect, complement, interfere with or otherwise be dependent upon the Contractor's Work, and shall resolve any disputes or problems with such other contractor. If amicable resolution is not promptly reached, the Contractor shall notify the Owners Representative and shall thereafter follow the Owners Representative's directions for resolving the issues. All contractors responsible for Work defined in individual sections of the Project shall be responsible, jointly and severally, for coordinating their various sections of work as to scheduling, installation procedures and installation of related materials.

7.2 Scheduling. If the City of Miami Beach requests, the Contractor shall include provision in the Contractor's schedule for the work of other contractors.

7.3 Damages Caused by Other Contractors.. If any other contractor performing work on the Work Site at the same time as Contractor should hinder, delay or damage the Contractor's Work, or should otherwise cause loss or injury to the Contractor, the Contractor agrees that it will look solely to such contractor for relief. Neither the City of Miami Beach nor its representatives shall be responsible for any such hindrance, delay, damage, loss or injury, and the Contractor will, in no event, attempt to hold the City of Miami Beach or its representatives liable for resulting costs or damages. Similarly, the Contractor agrees that it will be directly responsible to any other contractor performing work on the Work Site for any loss, injury, damage or delay, including acceleration costs, incurred as a result of delay, interference, or damage to Work caused by the Contractor. The Contractor and its Performance Bond surety shall indemnify and hold harmless the City of Miami Beach from and against any claim brought against any of them by another contractor for the damages covered by this Paragraph, including costs, expenses and attorneys' fees incurred as a result of the Contractor's alleged acts or omissions.

8 . PAYMENT

8.1 Schedule of Values. Within five (5) days after executing the Contract, the Contractor shall submit to the City of Miami Beach a Schedule of Values allocated to various portions of the Work. The schedule, when approved, shall be used as a basis for reviewing the Contractor's Applications for Payment.

8.2 Progress Payments. The City of Miami Beach shall make monthly progress payments to the Contractor for Work performed in accordance with the Contract Documents, and for which the Contractor has sought payments via properly completed, documented and approved Applications for Payment. At least ten (10) days before the date established for each progress payment, the Contractor shall submit to the Owners Representative an itemized Application for Payment which conforms to the following requirements:

8.2.1 The Application for Payment shall be typed on the American Institute of Architects Document AIA G702, Application and Certificate for Payment, and include AIA G703, with the continuation sheet included.

8.2.2 The Contractor will add the following lines for signature to

the AIA G702:

City of Miami Beach (Owner)_____

8.2.3 The Contractor's submission of an Application for Payment shall constitute its representation that the services and materials described in the application and for which payment is sought have been provided to the City of Miami Beach and that the application and all supporting invoices and other documentation are true and accurate in all respects.

8.3 Substantiating Data for Progress Payments

8.3.1 When the City of Miami Beach or it's representatives require additional data to substantiate a payment application, the Contractor shall submit the information with a numbered cover letter, identifying:

- (1) Project name and number.
- (2) Payment application number and date.
- (3) Detailed list of enclosures.
- (4) The item number, identification and a description, for stored material on-site (if the Owner has expressly agreed to pay for stored material(s)).

8.4 Timing of Payment. Progress payments will be made by City of Miami Beach within thirty (30) calendar days after presentation by the Contractor of a properly submitted and approved invoice.

8.5 Passage of Title. Material, equipment, hardware and work covered by progress payments or final payment shall become the sole property of the City of Miami Beach, no matter where located. This provision shall not be construed as relieving the Contractor from the responsibility for the fulfillment of the terms of the Contract.

8.6 Final Completion; Final Payment. After the Contractor has completed the Work, including completion of any acceptance testing, and the Architect so certifies, City of Miami Beach will accept the Work. This will constitute Final Completion of the Work. The Contractor shall submit its Final Application for Payment within ten (10) days of Final Completion. The Final Application for Payment must conform in form and substance to the requirements for applications for progress payment and must include satisfactory evidence that all Subcontractors and suppliers have been paid all amounts due to them for labor or materials provided for the Work and must include a written certification from the Contractors that all of the Work has been completed in accordance with the Contract and applicable laws..

8.7 City of Miami Beach's Right to Withhold Payments. The City of Miami Beach may withhold payment for any Work claimed to have been performed by the Contractor if the Application for Payment states, or the City of Miami Beach reasonably determines that:

8.7.1 any Work for which payment is sought is defective or non-conforming and such defects or non-conformance have not been remedied; or

8.7.2 the Contractor has not promptly paid all amounts due to

laborers, materialmen and Subcontractors; or

8.7.3 any of the Contractor's laborers, Subcontractors or materialmen has filed a mechanic's lien against the Project, and the Contractor has not caused such lien to be discharged; or

8.7.4 the City of Miami Beach reasonably determines that the Contractor will be unable to complete the Work for the balance of the Contract Sum and the Contractor fails to provide reasonable assurances that it has the financial resources to complete the Work; or

8.7.5 the Contractor is otherwise in default under its Contract.

9 . PREVAILING WAGE REQUIREMENTS.

9.1 Applicable Law. The Contractor is hereby notified that the Contract is subject to the provisions, duties, obligations, remedies and penalties of the Prevailing Wage Act, which is incorporated herein by reference as if fully set forth herein.

9.2 Wage Predetermination. In compliance with the Prevailing Wage Act, the Prevailing Minimum Wage Predetermination is included in the General Requirements and is a part hereof, as approved by the Secretary of Labor and Industry. The prevailing minimum wage predetermination is included in the Contract Documents as Attachment "C" to these General Conditions.

9.3 No Strike; No Lockout. By executing the Contract, Contractor warrants and represents that the collective bargaining agreements between the Contractor and any union which will perform under the Contract, include a no-strike, no-lockout clause.

10 . INSURANCE.

City of Miami Beach Insurance Requirements

Contractor shall furnish evidence to the City of Miami Beach that with respect to the operations he performs, he/she carries a comprehensive general liability insurance policy (including, but not limited to, blanket contractual liability, completed operations/products liability, contractor's protective liability, and explosion, collapse and underground hazard coverage) providing a limit of not less than two million dollars (\$2,000,000) for all damages arising out of bodily injury or death in any one (1) occurrence, and providing for a limit of not less than two million dollars (\$2,000,000) for damages to or destruction of property, including the loss of the use thereof, in any one occurrence; two million dollars (\$2,000,000) aggregate limit shall apply to bodily injury, personal injury and death, and to property damage.

Contractor shall also furnish evidence to the City of Miami Beach that with respect to the operations he performs, he carries an Umbrella Liability Policy with a limit of two million dollars (\$2,000,000) with a self-insured retention limit or deductible not to exceed ten thousand dollars (\$10,000).

All policies of insurance, including Umbrella Coverage, must be endorsed to include as additional named insured each of the following:

– City of Miami Beach

11 . INDEMNIFICATION.

11.1 Indemnity. To the full extent permitted by law, the Contractor shall indemnify, defend and hold harmless the City of Miami Beach, its Owners Representative, the City of Philadelphia, the Delaware River Port Authority, Philadelphia Industrial Development Corporation and the Commonwealth of Pennsylvania Department of Transportation from and against any and all losses, costs (including litigation costs and counsel fees), claims, suits, actions, damages, liability and expenses, including, but not limited to, those in connection with loss of life, bodily and personal injury or damage to property occasioned wholly or in part by the Contractor's breach or other act or omission or the act or omission of the Contractor's agents, Subcontractors, employees, or servants pursuant to this Contract. This indemnity shall apply whether or not the Contractor or party for whom it is responsible was negligent, and whether or not the City of Miami Beach, its Owners Representative, the City of Philadelphia, the Delaware River Port Authority, Philadelphia Industrial Development Corporation and the Commonwealth of Pennsylvania Department of Transportation, or any of their respective members, officers, employees, agents, consultants and representatives were negligent.

11.2 Survival and Non-Exclusivity of Indemnity. This indemnity shall survive termination of the Contract, Final Acceptance of the Work and final payment under the Contract. This indemnity is in addition to any other rights or remedies which the City of Miami Beach, its Owners Representative, the City of Philadelphia, the Delaware River Port Authority, Philadelphia Industrial Development Corporation and the Commonwealth of Pennsylvania Department of Transportation, and its representatives may have under the law or under the Contract. In the event of any claim or demand made against any party which is entitled to be indemnified here under, the City of Miami Beach may in its sole discretion reserve, retain or apply any monies due to the Contractor under the Contract for the purpose of resolving such claims.

12 . BONDS.

12.1 Time Due and Form. Within five (5) days after the City of Miami Beach gives Notice of Award of the Contract to the Contractor, and prior to or concurrently with execution of the Contract, the Contractor shall provide to City of Miami Beach surety bonds satisfactory to the City of Miami Beach in the amounts and for the purposes stated in the Agreement. The Bonds shall be executed by a responsible surety company or companies approved by the City of Philadelphia. Bonds shall be on the form included in the Bid Documents. The Contractor shall pay all Bond premiums, costs, and incidentals. No payment will be made to the Contractor and Notice Proceed will not be issued, until the Bonds have been approved by the City of Miami Beach.

12.2 Requisite Signatures on Bonds. Each Bond shall be signed by both the Contractor and the surety and the signature of the authorized agent of the surety shall be notarized.

13 . TERMINATION.

13.1 For Default

13.1.1 Grounds. The City of Miami Beach may terminate the Contract for default if the Contractor fails materially to perform any of its duties or obligations under the Contract properly and in a timely fashion, or if the Contractor files a voluntary petition in bankruptcy under any chapter of the Bankruptcy Code, has an involuntary petition filed against it, makes a general assignment for the benefit of its creditors, or has a receiver appointed.

13.1.2 Notice, Cure Period and Effective Date. The City of Miami Beach shall give the Contractor ten (10) days' written notice of intent to terminate or default. During that ten days, the Contractor shall have the opportunity to cure the default. However, unless the default is not cured to the satisfaction of the City of Miami Beach within the ten days and the City of Miami Beach so notifies the Contractor in writing, the Contract shall be deemed terminated without further notice and effective immediately. The Contractor hereby agrees that, in the event of termination for default, title to all Work in progress on the Work Site shall pass to the City of Miami Beach.

13.1.3 Further Payment to Contractor. The City of Miami Beach shall have no obligation to pay the Contractor for any Work done or materials supplied after the effective date of termination. No further payments on the Contract shall be made after termination until the Work has been completed by the City of Miami Beach and then only if the total cost of completing the Work, and all consequential damages, was less than the remaining balance of the Contract Price at the time of termination.

13.1.4 Assignment of Orders and Supply Contracts. The City of Miami Beach may, at its sole option, assume supply contracts or orders the Contractor placed before termination. The Contractor shall have the obligation to identify to the City of Miami Beach all such orders and supply contracts so that the City of Miami Beach may exercise its option.

13.1.5 City of Miami Beach's Right to Complete The Work. If the Contractor is terminated for default, the City of Miami Beach shall have the right to complete the Work by whatever means and methods it deems advisable.

13.1.6 Contractor's Liability. The Contract shall be liable for all costs the City of Miami Beach incurs in completing the Work after a default termination, to the extent that those costs are in excess of the Contract Price, as well as for any other damages allowable under this Contract or at law.

13.1.7 Conversion to Termination for Convenience. If it is ultimately determined that the City of Miami Beach 's termination of this Contract for default was wrongful, then the termination shall be deemed to have been a termination for convenience,

and the Contractor's rights and remedies shall be limited and governed by the provisions dealing with terminations for convenience.

13.2 For Convenience. The City of Miami Beach may, upon ten (10) days' written notice, terminate this Contract for its convenience, and without declaring any default by the Contractor. In the event of such a termination, the Contractor shall cease Work. The Contractor's sole and exclusive remedy in cases of termination for convenience is payment for the Work completed up to the time of termination and for all unavoidable costs of canceling or terminating open orders or supply contracts. The Contractor shall include in all Subcontracts for the Work a provision substantially similar to this Paragraph, authorizing termination for convenience and limiting the Subcontractors' rights and remedies as provided herein.

14 . MISCELLANEOUS.

14.1 Independent Contractor. The Contractor shall perform all Work under this Contract as an independent contractor and not an agent or employee of the City of Miami Beach.

14.2 City of Miami Beach As Sole Contract Privy. The Contractor is not in privity with, and shall have no claim against, the City for any costs it incurs or claims to have incurred in connection with the Work or the Contract, but must look solely to the City of Miami Beach for payment of such costs.

14.3 Contractor's License. The Contractor represents that it has obtained and maintained in force whatever licenses are required by applicable state or local laws for contractors performing the type of work to be done pursuant to the Contract.

14.4 Assignment. This Contract may not be assigned or transferred without the prior written consent of the City of Miami Beach. Any assignment of proceeds of this Contract shall be subject to all proper set-offs and contractually permitted withholdings in favor of the City of Miami Beach.

14.5 Governing Law/Waiver of Jury Trial. This Contract shall be governed by and construed in accordance with the laws of Pennsylvania, without regard to its conflict of laws principles. The parties expressly waive their right to trial by jury and agree that all disputes relating to the Contract or its breach shall be decided by a judge sitting without jury.

14.6Choice of Venue. All disputes arising from or in connection with this Contract shall be decided in the Court of Common Pleas of Philadelphia.

14.7Integrated Agreement. The Contract is an integration, constituting the entire agreement of the parties with respect to the subject matter of the Contract. It supersedes all prior or contemporaneous discussions, writings, or negotiations. The Contract may not be modified except by a writing executed by both parties.

14.8Remedies Cumulative. All rights and remedies provided to the parties under this Contract shall be cumulative, not exclusive. The parties may, in their discretion, avail themselves of any remedy

permitted by the Contract, at law or in equity, and the exercise of one or more remedies by a party shall not preclude the simultaneous or subsequent exercise of other remedies.

14.9Limitations. Statutes of limitations applicable to the City of Miami Beach 's right to assert claims or bring suit against the Contractor or the Contractor's surety in connection with the Contract or the Bonds shall not begin to run, or shall be deemed tolled, until Final Completion of the Work.

14.10 Captions. The table of contents, titles, section headings, or other captions contained in the General Conditions or other Contract Documents are solely to facilitate reference and in no way affect, limit, or cast light upon the interpretation or construction of the Contract.

14.11 Advertising or Public Relations. The City of Miami Beach reserves the right to review and approve in writing all City of Miami Beach -related copy prior to publi-ca-tion as well as any City of Miami Beach -related public statements and public discussions to be made by the Contractor, any of its Subcontractors, agents, officers, members or employees. The Contractor shall not allow City of Miami Beach -related copy to be submitted to any trade association, seminar sponsor or other public discussion group or be published in Contractor's advertisement or public relations programs until submitting the City of Miami Beach -related copy and receiving prior written approval from the City of Miami Beach. All information shall be factual and in no way imply that the City of Miami Beach endorses the Contractor's firm, service, or product.

Exhibit A Indemnity Agreement

SECTION 01100 - SUMMARY

PART 1 - GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Project consists of XX Gateway signs, XXX vehicular post and panel signs, XXX pedestrian signs, including maps and historic markers.located within the City of Miami Beach in Miami Dade County, Florida. General sign components consist of footings, base plates, posts, surface painted sign panels, engineer grade reflective vinyl copy/arrows and graphic artwork. All exposed surfaces shall receive a graffiti protectant clear coating. Installations shall require core drilling into concrete or brick paver sidewalks as well as soil. Red Concrete mix is required at all locations north of fifth Street. Where unforeseen conditions present themselves the fabricator will be responsible for engineering spread footers, meeting the same requirements as outlined in the design intent drawings. On-going coordination and sequencing will be required with current streetscape programs based on construction and installation schedules. In order to minimize impacts to existing utilities, the contractor is responsible for contacting Utility Companies prior to installation and shall identify this process with in a critical path project schedule chart. Representatives from the city and design team will be available to review locations where a conflict presents it self. Custom mounting methods may be required for locations that interfere with underground utilities. Reference Section 1.3 (below) for project schedule. Breakaway poles are required at all locations (see documentation drawings), the final design and certification of these poles shall be the responsibility of the fabricator, approval of the design is required by the Hillier and the City of Miami Beach.
- B. Project Information
 - 1. Project Location: Miami Beach, FL
 - 2. Owner: City of Miami Beach, FL
 - 3. Administrator: City of Miami Beach, FL
 - 4. Designer: Hillier, Philadelphia PA
 - 5. Landscape Architect / Local Project Manager: EDAW, Miami Beach, FL
 - 6. Traffic Engineer: F.R. Aleman, Miami, FL
 - 7. Structural Engineer: EAC Consulting, Miami FL
- C. Architect Identification: The Contract Documents, dated November 5 were prepared by Hillier , F.R. Aleman and EAC Consulting.
- D. The Work consists of:
 - 1. Fabrication and Installation of exterior gateway, vehicular and pedestrian signs.

1.2 CONTRACT

- A. Project will be constructed under a general construction contract.

1.3 WORK SEQUENCE

- A. The Work shall be conducted as follows
 - 1. Gateway Signs
 - 2. Vehicular Signs
 - 3. Pedestrian Signs
- B. The sequence and timeframes shall be conducted as follows from award of contract and Notice to proceed.
Anticipated Total Project Timeframe 18 weeks to substantial completion
 - 1. Award of Contract
 - 2. Notice to proceed provided by the City of Miami Beach

- 3. Contract Administration 2 Weeks
- 4. Shop Drawings 3 weeks*
- 5. Samples 4 weeks*
- 6. Field Mark outs 4 weeks*
- 7. Fabrication and Installation 20 weeks
(substantial completion)

* Tasks shall run in concert

1.4 USE OF PREMISES

- A. General: The space available to the Contractor for the performance of the work, either exclusively or in conjunction with others performing other construction as part of the project, is shown on the sign location plans.
- B. Access to sign locations may be limited; obtain City of Miami Beach’s approval of proposed routes of access.
- C. Make other arrangements for storage.

1.5 WORK UNDER OTHER CONTRACTS

- A. Separate Contract: Owner has a separate contract for performance of certain construction operations at Project site. Those operations are scheduled to be substantially complete before work under this Contract begins. This contract includes the following: streetscape and road repairs
- B. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PRECONSTRUCTION MEETING

- A. A preconstruction meeting will be held at a time and place designated by the Owner and Administrator for the purpose of clarification of the project and for the purpose of identifying responsibilities of the Owner, Administrator and the Contractors personnel and explanation of administrative procedures.
- B. The Contractor shall also use this meeting for the following:
 - 1. Agenda: Construction Schedule, Safety, Security, Cleaning up, Subcontractor procedures relating to; Submittals, Change Orders, Applications for payment and record documents.
 - 2. Attendees: Representatives from the following shall be present; City of Miami Beach and the design team.

3.2 SECURITY PROCEDURES

- A. Provide secure storage for materials
- B. Secure completed work as required to prevent loss or damage

3.3 COORDINATION

- A. If necessary, inform each party involved, in writing, of procedures required for coordination; include requirements for giving notice, submitting reports and attending meetings.
- B. Prepare coordination drawings where limited space available may cause conflicts in the locations of installed products, and when required to coordinate installation of products.
 - 1. Where space is limited, show plan and cross section dimensions of space available, including structural obstructions.

- 2. Coordinate shop drawings prepared by separate entities.
- 3. Show installation sequence when necessary for proper installation.

END OF SECTION 01100

SECTION 01320 - CONSTRUCTION PROGRESS
DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Construction Schedule.
 - 2. Submittals Schedule.
 - 3. Daily construction reports.
 - 4. Material location reports.
 - 5. Field condition reports.
 - 6. Special reports.
 - 7. Construction photographs.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
 - 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- F. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.
- G. Milestone: A key or critical point in time for reference or measurement.
- H. Diagram: A graphic diagram of a schedule, showing activities and activity relationships.

1.3 SUBMITTALS

- A. Submittals Schedule: Submit 5 copies of schedule. Arrange the following information in a tabular format:
 - 1. Scheduled date for first submittal.
 - 2. Submittal category (action or informational).
 - 3. Name of subcontractor.
 - 4. Description of the Work covered.
 - 5. Scheduled date for Administrators final release or approval.

- B. Preliminary Construction Schedule: Submit 5 printed copies; one a single sheet of reproducible media, and one a print.
- C. Contractor's Construction Schedule: Submit 5 printed copies of initial schedule, one a reproducible print and one a blue- or black-line print, large enough to show entire schedule for entire construction period.
- D. Construction Photographs: Submit two prints of each photographic view within seven days of taking photographs.
 - 1. Format: 3" x 5" smooth-surface matte prints on single-weight commercial-grade stock, enclosed back to back in clear plastic sleeves that are] punched for standard 3-ring binder.
 - 2. Identification: On back of each print, provide an applied label or rubber-stamped impression with the following information:
 - a. Name of Project.
 - b. Sign Location #.
 - c. Date photograph was taken
 - d. Name of Contractor.
 - 3. Negatives: Submit a complete set of photographic negatives in protective envelopes as a Project Record Document. Identify date photographs were taken.
- E. Daily Construction Reports: Submit five copies at weekly intervals.
- F. Material Location Reports: Submit five copies at weekly intervals.
- G. Field Condition Reports: Submit five copies at time of discovery of differing conditions.
- H. Special Reports: Submit five copies at time of unusual event.

1.4 QUALITY ASSURANCE

- A. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Division 1 Section 01010 Summary – Preconstruction Meeting. Review methods and procedures related to the Preliminary Construction Schedule and Contractor's Construction Schedule, including, but not limited to, the following:
 - 1. Discuss constraints, including phasing and milestones
 - 2. Review schedule for work of Owner's separate contracts.
 - 3. Review time required for review of submittals and resubmittals and approvals
 - 4. Review requirements for utility checks.
 - 5. Review time required for completion and startup procedures.
 - 6. Review and finalize list of construction activities to be included in schedule.
 - 7. Review submittal requirements and procedures.

1.5 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 - 2. Initial Submittal: Submit concurrently with preliminary bar-chart schedule. Include submittals required during the first 20 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead-time for manufacture or fabrication.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities:
 - 1. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 30 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 2. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
 - 3. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's and Owner's Representative administrative procedures necessary for certification of Substantial Completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
 - 1. Phasing: Arrange list of activities on schedule by phase.
 - 2. Work under More Than One Contract: Include a separate activity for each contract.
 - 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 - 4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 1 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 5. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Uninterruptible services.
 - c. Use of premises restrictions.
 - d. Seasonal variations.
 - e. Environmental control.
 - 6. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.

- b. Submittals.
 - c. Mockups.
 - d. Fabrication.
 - e. Deliveries.
 - f. Installation.
 - g. Curing.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule.
- E. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.
- F. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall project schedule.
- G. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule within seven days of date established for the Notice to Proceed
- H. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 30 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.3 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site.
 - 2. List of separate contractors at Project site.
 - 3. Approximate count of personnel at Project site.
 - 4. High and low temperatures and general weather conditions.
 - 5. Accidents.
 - 6. Meetings and significant decisions.
 - 7. Unusual events (refer to special reports).
 - 8. Stoppages, delays, shortages, and losses.
 - 9. Meter readings and similar recordings.
 - 10. Emergency procedures.
 - 11. Orders and requests of authorities having jurisdiction.
 - 12. Change Orders received and implemented.
 - 13. Construction Change Directives received.
 - 14. Services connected and disconnected.
 - 15. Substantial Completions authorized.
- B. Material Location Reports: At weekly intervals, prepare a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare a detailed report. Submit with a request for information on CSI Form 13.2A. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.4 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At bi-weekly intervals, update schedule to reflect actual construction progress and activities. Issue schedule 3 days before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Administrator, Architect, Owner's Representative and other parties identified by Contractor with a need-to-know schedule responsibility.

3.2 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Contractors photographer.
- B. Photographic Prints: 3" x 5"
- C. Date Stamp: Unless otherwise indicated, date and time stamp each photograph as it is being taken so stamp is integral to photograph.
- D. Preconstruction Photographs: Before starting construction, take 2 color photographs of Project site and surrounding properties from different vantage points. Show existing conditions adjacent to property.
- E. Construction Progress: On a weekly basis take minimum 2 color photographs of each sign location and minimum of 9 color photographs in-shop production of sign materials. Photographer shall select vantage points to best show status of construction and progress since last photographs were taken.
 - 1. Field Office Prints: Retain one set of prints of periodic photographs in field office at Project site, available at all times for reference. Identify photographs the same as for those submitted to Architect.
- F. Final Completion Construction Photographs: Take 2 color photographs after date of Substantial Completion of each sign location for submission as Project Record Documents.

END OF SECTION 01320

SECTION 01330 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
 - 1. Division 1 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's Construction Schedule and the Submittals Schedule and construction photographs.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Administrators, Architect's and Owner's Representative's responsive action.
- B. Informational Submittals: Written information that does not require Architect and Owner's Representative's approval. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that requires sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect and Owner's Representative r reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal.
 - 1. Initial Review: Allow 10 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Construction Manager will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Allow [10] days for processing each resubmittal.
 - 4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- E. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 4 by 5 inches on label or beside

title block to record Contractor's review and approval markings and action taken by Architect and Construction Manager.

- 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect and Owner's Representative.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Unique identifier, including revision number.
 - i. Drawing number and detail references, as appropriate.
 - j. Other necessary identification.
- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Architect or Construction Manager observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
 - 1. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, and authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Use only final submittals with mark indicating action taken by Architect and Owner's Representative in connection with construction.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
 - 1. Number of Copies: Submit three copies of each submittal, unless otherwise indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Manufacturer's catalog cuts.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Shopwork manufacturing instructions.

- f. Templates and patterns.
- g. Schedules.
- h. Design calculations.
- i. Notation of coordination requirements.
- j. Notation of dimensions established by field measurement.
- 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches .
- 3. Number of Copies: Submit copies of each submittal, as follows:
 - a. Initial Submittal: Submit one correctable, translucent, reproducible print and one blue- or black-line print. Architect, through Owner's Representative, will return the reproducible print.
 - b. Final Submittal: Submit five blue- or black-line prints, unless prints are required for operation and maintenance manuals. Submit five prints where prints are required for operation and maintenance manuals. Architect and Owner's Representative will retain two < prints; remainder will be returned.
- D. Samples: Prepare physical units of materials or products, including the following:
 - 1. Comply with requirements in Division 1 Section "Quality Requirements" for mockups.
 - 2. Samples for Approval: Submit color samples consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - 3. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Architect's sample where so indicated. Attach label on unexposed side that includes the following:
 - a. Generic description of Sample.
 - b. Product name or name of manufacturer.
 - c. Sample source.
 - 4. Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, provide the following:
 - a. Size limitations.
 - b. Compliance with recognized standards.
 - c. Availability.
 - d. Delivery time.
 - 5. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
 - a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of paired units that show approximate limits of the variations.
 - b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
 - 6. Number of Samples for Initial Selection: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect through Owner's Representative, will return submittal with options selected.
 - 7. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

- a. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
- E. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
- F. Contractor's Construction Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for Owner's Representative action.
- G. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."
- H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
 - 1. Number of Copies: two copies of each submittal, unless otherwise indicated.
 - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - 3. Test and Inspection Reports: Comply with requirements in Division 1 Section "Quality Requirements."
- B. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- C. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- D. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- E. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- F. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- G. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- H. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- I. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment.

- J. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
 - K. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
 - 1. Preparation of substrates.
 - 2. Required substrate tolerances.
 - 3. Sequence of installation or erection.
 - 4. Required installation tolerances.
 - 5. Required adjustments.
 - 6. Recommendations for cleaning and protection.
 - L. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
 - 1. Name, address, and telephone number of factory-authorized service representative making report.
 - 2. Statement on condition of substrates and their acceptability for installation of product.
 - 3. Statement that products at Project site comply with requirements.
 - 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 6. Statement whether conditions, products, and installation will affect warranty.
 - 7. ther required items indicated in individual Specification Sections.
 - M. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- B. Action Submittals: Architect and Owner's Representative will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect and Construction Manager will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 - C. Informational Submittals: Architect and Owner's Representative will review each submittal and will not return it, or will reject and return it if it does not comply with requirements. Architect and Construction Manager will forward each submittal to appropriate party.
 - D. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 01330

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect and Construction Manager.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S AND CONSTRUCTION MANAGER'S ACTION

- A. General: Architect and Owner's Representative will not review submittals that do not bear Contractor's approval stamp and will return them without action.

SECTION 01781 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 1. Record Drawings.
 2. Record Specifications.
 3. Record Product Data.

1.2 SUBMITTALS

- A. Record Drawings: Comply with the following:
 1. Number of Copies: Submit 1 set of marked-up Record Prints.
 2. Number of Copies: Submit copies of Record Drawings as follows:
 - a. Initial Submittal: Submit one set of plots from corrected Record CAD Drawings and one set of marked-up Record Prints. Architect will initial and date each plot and mark whether general scope of changes, additional information recorded, and quality of drafting are acceptable. Architect will return plots and prints for organizing into sets, printing, binding, and final submittal.
 - b. Final Submittal: Submit one set of marked-up Record Prints.
- B. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one copy of each Product Data submittal.
 1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in the manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations.
 - d. Locations and depths of underground utilities.
 - e. Changes made by Change Order or Construction Change Directive.

- f. Changes made following Architect's written orders.
 - g. Details not on the original Contract Drawings.
 - h. Field records for variable and concealed conditions.
 - i. Record information on the Work that is shown only schematically.
- 3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
- 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
- 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
- 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record CAD Drawings: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect and Owner's Representative. When authorized, prepare a full set of corrected CAD Drawings of the Contract Drawings, as follows:
 1. Format: Same CAD program, version, and operating system as the original Contract Drawings.
 2. Incorporate changes and additional information previously marked on Record Prints. Delete, redraw, and add details and notations where applicable.
 3. Refer instances of uncertainty to Architect through Owner's Representative for resolution.
- C. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
 1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
 2. Consult with Architect and Owner's Representative for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- D. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Record CAD Drawings: Organize CAD information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each CAD file.
 3. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect and Construction Manager.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of the manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
 - 5. Note related Change Orders, Record Drawings, and Product Data where applicable.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, Record Drawings, and Product Data where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's and Owner's Representative reference during normal working hours.

END OF SECTION 01781

SECTION 02231 - TREE PROTECTION AND TRIMMING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the protection and trimming of trees that interfere with, or are affected by, execution of the Work, whether temporary or new construction.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification: From a qualified arborist that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.
- C. Maintenance Recommendations: From a qualified arborist for care and protection of trees affected by construction during and after completing the Work.

1.3 QUALITY ASSURANCE

- A. Tree Service Qualifications: An experienced tree service firm that has successfully completed tree protection and trimming work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site on a full-time basis during execution of the Work.
- B. Arborist Qualifications: An arborist certified by the International Society of Arboriculture or licensed in the jurisdiction where Project is located.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Chain Link Fence: Metallic-coated steel chain link fence fabric, 0.120-inch- diameter wire size; 48 inches high, minimum; line posts, 1.9 inches in diameter; terminal and corner posts, 2-3/8 inches in diameter; top rail, 1-5/8 inches in diameter; bottom tension wire, 0.177 inch in diameter; with tie wires, hog ring ties, and other accessories for a complete fence system.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Temporary Fencing: Install temporary fencing located as indicated or outside the drip line of trees to protect remaining vegetation from construction damage.
 - 1. Install chain link fence according to ASTM F 567 and manufacturer's written instructions.
- B. Protect tree root systems from damage due to noxious materials caused by runoff or spillage while mixing, placing, or storing construction materials. Protect root systems from flooding, eroding, or excessive wetting caused by dewatering operations.
- C. Do not store construction materials, debris, or excavated material within the drip line of remaining trees. Do not permit vehicles or foot traffic within the drip line; prevent soil compaction over root systems.
- D. Do not allow fires under or adjacent to remaining trees or other plants.

3.2 EXCAVATION

- A. Install shoring or other protective support systems to minimize sloping or benching of excavations.
- B. Do not excavate within drip line of trees, unless otherwise indicated.
- C. Where excavation for new construction is required within drip line of trees, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks and comb soil to expose roots.
 - 1. Relocate roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and relocate them without breaking. If encountered immediately adjacent to location of new construction and relocation is not practical, cut roots approximately 3 inches back from new construction.
 - 2. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

3.3 TREE REPAIR AND REPLACEMENT

- A. Promptly repair trees damaged by construction operations within 24 hours. Treat damaged trunks, limbs, and roots according to written instructions of the qualified arborist.
- B. Remove and replace dead and damaged trees that the qualified arborist determines to be incapable of restoring to a normal growth pattern.
 - 1. Provide new trees of 6-inch caliper size and of a species selected by Architect when trees more than 6 inches in caliper size, measured 12 inches above grade, are required to be replaced.

3.4 DISPOSAL OF WASTE MATERIALS

- A. Burning is not permitted.
- B. Disposal: Remove excess excavated material, displaced trees, and excess chips from Owner's property.

END OF SECTION 02231

SECTION 03300 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mix design, placement procedures, and finishes.

1.2 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume.

1.3 SUBMITTALS

- A. Product Data: For each type of manufactured material and product indicated.
- B. Design Mixes: For each concrete mix. Include alternate mix designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.
 - 1. Indicate amounts of mix water to be withheld for later addition at Project site.
- C. Steel Reinforcement Shop Drawings: Details of fabrication, bending, and placement, prepared according to ACI 315, "Details and Detailing of Concrete Reinforcement." Include material, grade, bar schedules, stirrup spacing, bent bar diagrams, arrangement, and supports of concrete reinforcement. Include special reinforcement required for openings through concrete structures.
- D. Formwork Shop Drawings: Prepared by or under the supervision of a qualified professional engineer detailing fabrication, assembly, and support of formwork. Design and engineering of formwork are Contractor's responsibility.
- E. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on comprehensive testing of current materials:
- F. Material Certificates: Signed by manufacturers certifying that each of the following items complies with requirements:
 - 1. Cementitious materials and aggregates.
 - 2. Form materials and form-release agents.
 - 3. Steel reinforcement and reinforcement accessories.
 - 4. Admixtures.
 - 5. Curing materials.
 - 6. Bonding agents.
 - 7. Adhesives.
- G. Minutes of preinstallation conference.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed concrete Work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for formwork and shoring and reshoring installations that are similar to those indicated for this Project in material, design, and extent.
- C. Manufacturer Qualifications: A firm experienced in manufacturing

ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.

- 1. Manufacturer must be certified according to the National Ready Mixed Concrete Association's Certification of Ready Mixed Concrete Production Facilities.
- D. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 to conduct the testing indicated, as documented according to ASTM E 548.
 - 1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.
- E. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, each aggregate from one source, and each admixture from the same manufacturer.
- F. ACI Publications: Comply with the following, unless more stringent provisions are indicated:
 - 1. ACI 301, "Specification for Structural Concrete."
 - 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
- G. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings."
 - 1. Before submitting design mixes, review concrete mix design and examine procedures for ensuring quality of concrete materials. Require representatives of each entity directly concerned with cast-in-place concrete to attend, including the following:
 - a. Contractor's superintendent.
 - b. Independent testing agency responsible for concrete design mixes.
 - c. Ready-mix concrete producer.
 - d. Concrete subcontractor.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle steel reinforcement to prevent bending and damage.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
 - 1. Plywood, metal, or other approved panel materials.
 - 2. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1, and as follows:
 - a. High-density overlay, Class 1, or better.
 - b. Medium-density overlay, Class 1, or better, mill-release agent treated and edge sealed.
 - c. Structural 1, B-B, or better, mill oiled and edge sealed.
 - d. B-B (Concrete Form), Class 1, or better, mill oiled and edge sealed.

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 , as required by structural engineer.

2.3 REINFORCEMENT ACCESSORIES

- A. Bar Supports: Bolsters, chairs, spacers, and other devices for spac-

- ing, supporting, and fastening reinforcing bars and welded wire fabric in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or pre-cast concrete or fiber-reinforced concrete of greater compressive strength than concrete, and as follows:
1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected or CRSI Class 2 stainless-steel bar supports.

2.4 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type I.
 1. Fly Ash: ASTM C 618, Class F.
- B. Normal-Weight Aggregate: ASTM C 33, uniformly graded, and as follows:
 1. Nominal Maximum Aggregate Size: 3/4 inch .
 2. Combined Aggregate Gradation: Well graded from coarsest to finest with not more than 18 percent and not less than 8 percent retained on an individual sieve, except that less than 8 percent may be retained on coarsest sieve and on No. 50 sieve, and less than 8 percent may be retained on sieves finer than No. 50.
- C. Water: Potable and complying with ASTM C 94.

2.5 ADMIXTURES

- A. General: Admixtures certified by manufacturer to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material and to be compatible with other admixtures and cementitious materials. Do not use admixtures containing calcium chloride.
- B. Air-Entraining Admixture: ASTM C 260.
- C. Water-Reducing Admixture: ASTM C 494, Type A.
- D. Corrosion-Inhibiting Admixture: Commercially formulated, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete.

2.6 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.

2.7 RELATED MATERIALS

- A. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
- B. Epoxy-Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class and grade to suit requirements, and as follows:
 1. Type II, non-load bearing, for bonding freshly mixed concrete to hardened concrete.

2.8 CONCRETE MIXES

- A. Prepare design mixes for each type and strength of concrete determined by either laboratory trial mix or field test data bases, as follows:
 1. Proportion normal-weight concrete according to ACI 211.1 and ACI 301.
- B. Use a qualified independent testing agency for preparing and

- reporting proposed mix designs for the laboratory trial mix basis.
- C. Footings and Foundation Walls: Proportion normal-weight concrete mix as follows:
 1. Compressive Strength (28 Days): 5400 psi .
 2. Maximum Slump: 4 inches .
 3. Maximum Slump: 5 inches .
 - D. Red Colored Concrete : North of Fifth Street and at all other locations that require Red Mix Concrete, the concrete shall comply with the City of Miami Beach Red Concrete Mix Code No. 1300248, Approval No. MB05, approval of color conformity to the Miami Beach Red integral color concrete mix used in sidewalks, curb and gutters and valley gutters in the City of Miami beach north of Fifth Street.
 1. Concrete delivery tickets should be clearly marked with the Miami Beach Red Concrete Mix Design Approval and mix code number.

2.9 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.10 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94, and furnish batch ticket information.
 1. When air temperature is between 85 and 90 deg F , reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F , reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until concrete structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Limit concrete surface irregularities, designated by ACI 347R as abrupt or gradual, as follows:
 1. Class A, 1/8 inch .
- D. Construct forms tight enough to prevent loss of concrete mortar.
- E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical. Kerf wood inserts for forming keyways, reglets, recesses, and the like, for easy removal.
 1. Do not use rust-stained steel form-facing material.
- F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.
- G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.

- H. Do not chamfer corners or edges of concrete.
- I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.
- J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use Setting Drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 1. Install anchor bolts, accurately located, to elevations required.

3.3 REMOVING AND REUSING FORMS

- A. General: Formwork, for sides of beams, walls, columns, and similar parts of the Work, that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F for 24 hours after placing concrete provided concrete is hard enough to not be damaged by form-removal operations and provided curing and protection operations are maintained.
- B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.
- C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

3.4 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

3.6 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Do not add water to concrete during delivery, at Project site, or dur-

ing placement, unless approved by Architect.

- C. Before placing concrete, water may be added at Project site, subject to limitations of ACI 301.
- D. Deposit concrete continuously or in layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as specified. Deposit concrete to avoid segregation.
- E. Deposit concrete in forms in horizontal layers no deeper than 24 inches and in a manner to avoid inclined construction joints. Place each layer while preceding layer is still plastic, to avoid cold joints.
- F. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 - 1. When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.
- G. Hot-Weather Placement: Place concrete according to recommendations in ACI 305R and as follows, when hot-weather conditions exist:
 - 1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 - 2. Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
 - 3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.7 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures, unless otherwise indicated, after work of other trades is in place. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete Work.

3.8 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with recommendations in ACI 305R for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Formed Surfaces: Cure formed concrete surfaces, including

underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing by one or a combination of the following methods:

- D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces, by one or a combination of the following methods:

3.9 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.
- B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.
- C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
- D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
- E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
- F. Repair materials and installation not specified above may be used, subject to Architect's approval.
- G. When locating a footer within a single pavement block (max. 5'-0" x 5'-0"), adjacent to at least 2 expansion joints, the entire block of pavement shall be removed and replaced with the same materials and finish of adjacent sidewalk areas.

3.10 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified independent testing and inspecting agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in this Article.
- B. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
- C. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
- D. Strength of each concrete mix will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi .

END OF SECTION 03300

SECTION 10436 - POST AND PANEL SIGNS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Nonilluminated, single-sheet-type post and panel signs.

1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide post and panel signs capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated, determined according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures":
 - 1. Wind Loads: Determine loads based on a uniform pressure of 150 mph acting in any direction.
- B. Thermal Movements: Provide post and panel signs that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes. Include manufacturer's written instructions for maintaining and cleaning sign surfaces.
- B. Shop Drawings: Show fabrication and installation details for post and panels signs.
 - 1. Include plans, elevations, and at least 3/4-inch scale sections of typical members and other components and construction details. Show anchors, reinforcement, accessories, layout, and installation details.
 - 2. Include message list, with details of wording and lettering layout, at least half size. Include full-size details of graphics.
 - 3. Provide Graphic layouts for each sign location and its associated message. Minimum scale: 1" = 1' - 0"
 - 4. Fabricator shall provide a Structural Engineer Seal (State of Florida Certification)) for all shop drawings indicating fasteners, construction, installation, footers or other structural components
- C. Samples for Verification: For 3 sets of each type of product indicated, of size below:
 - 1. Aluminum Post: For each form, finish, and color, on 6-inch-long sections of extrusions. All custom extrusion die shall be approved prior to fabrication.
 - 2. Aluminum Sheet: Squares of sheet at least 6 inches by 6 inches.
 - 3. Paint Swatches: For each painted color, provide a 4" by 4" inch aluminum sheet. Clearly indicate on the back the color specification, date and submittal number.
 - 4. Reflective Vinyl Sheet: 8 by 10 inches for each color required.
 - 5. Examples of all graphic image process, including materials, methods, colors and finishes, for maps, patterns, imagery, letters, numbers and other graphic devices.
 - 6. Polyester Resin Sheeting: Squares of sheet at least 6 x 6 inches, including; thickness, graphic process, color, typography, patterns and imagery.

- 7. Full Size Prototype Signs: for bid projects a full size pedestrian PED. 2 and PED.4 and vehicular VDIR.3 shall be constructed and installed in place. The prototypes will be fabricated of all materials, process, colors and finishes as outlined in the design intent drawings. The signs will ultimately be used as a component of the system. City will provide exact location and messages upon completion of shop drawings.
- 8. Sign Components: In addition to the submittals outlined above, the following sign components will require samples and/or mock-ups for approval prior to fabrication. The mock-ups shall be fabricated of the approved materials, processes, finishes and colors.

For sign types indicated the following sample is required;

- a. GATE.2A or 2B: Full size section of pattern,
- b. GATE 2A or 2B: Full Size letter M and B
- c. GATE 4A or 4B: Full Size Letter
- d. ZONE 1,2 or 3: Mounting Bracket
- e. VDIR: Mounting Bracket
- f. PED.1, 2 or 3: Map Artwork and (base) patterns
- g. PED.4 or 5: Mounting Brackets
- h. ID.1:4 scale panel and post, with attachment method

- D. Cost for mobilization, product data, shop drawings, mock-ups, samples and other submittals shall be included within the Lump Sum Bid Proposal.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative of sign manufacturer for installation and maintenance of units required for this Project.
 - 1. Installer shall be capable of providing replacement message panels within 10 working days of receipt of order.
- B. Source Limitations: Obtain each type of post and panel sign through one source from a single manufacturer.
- C. Product Options: Drawings indicate size, profiles, and dimensional requirements of post and panel signs and are based on the specific type and model indicated.
 - 1. Do not modify intended aesthetic effects, as judged solely by Designer, except with Designer's approval. If modifications are proposed, submit comprehensive explanatory data to Designert for review.
 - 2. Suggested Modifications shall not increase cost or schedule of project.

1.5 DELIVERY AND HANDLING

- A. Deliver post and panel signs in protective covering and crating to protect sign components and surfaces against damage.

1.6 COORDINATION

- A. Coordinate installation of anchorages for post and panel signs. Furnish setting drawings, templates, and directions for installing anchorages and other items that are to be embedded in concrete. Deliver such items to Project site in time for installation.
- B. Coordinate delivery time so signs can be installed within 24 hours of receipt at Project site.

1.7 WARRANTY

- A. Warranty Period: 10 years from date of Substantial Completion. The post, panel, footers, sign faces, materials and fasteners shall be

free of defects, including, but not limited to the following; scaling, peeling, fading, warping, vinyl shrinking, and corrosion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Aluminum Sheet and Plate: ASTM B 209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of alloy 5005-H15.
- B. Aluminum Extrusions: ASTM B 221, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of alloy 6063-T5.
- C. Vinyl Film: Engineer Grade reflective vinyl film, as produced by 3M Corporation, with pressure-sensitive adhesive backing, suitable for exterior applications.
- D. Clear Polyester Resin: Miss. Spec P7788A – surface endurance and scratch resistance; thermal shock; humidity; impact resistance. Mil std 202B (method 10A) salt spray.
 - 1. Fed test std. 141 (method 6152) accelerated weather, acidity, cleaning components and fluids.
 - a. Immersed in a 0.1 normal HCL solution for 30 minutes
 - b. Immersed in a 0.1 normal H2SO4 solution for 30 minutes

2.2 ACCESSORIES

- A. Fasteners: Use concealed, fasteners fabricated from metals that are noncorrosive to sign material and mounting surface. Where fasteners are exposed, use tamper resistant fasteners.
- B. Anchors and Inserts: Use stainless-steel or hot-dip galvanized anchors and inserts. Use torque-controlled expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete.
- C. Non-Colored Concrete for Postholes: Comply with requirements "Cast-in-Place Concrete" for normal-weight, air-entrained, poured in place ready-mix CLASS B concrete with a minimum 28-day compressive strength of 5400 psi, unless otherwise indicated.
- D. Red Colored Concrete : North of Fifth Street and at all other locations that require Red Mix Concrete, the concrete shall comply with the City of Miami Beach Red Concrete Mix Code No. 1300248, Approval No. MB05, approval of color conformity to the Miami Beach Red integral color concrete mix used in sidewalks, curb and gutters and valley gutters in the City of Miami beach north of Fifth Street.
 - 1. Concrete delivery tickets should be clearly marked with the Miami Beach Red Concrete Mix Design Approval and mix code number.

2.3 FABRICATION, GENERAL

- A. General: Provide post and panel signs of configurations indicated.
 - 1. Welded Connections: Comply with AWS standards for recommended practices in shop welding. Provide welds behind finished surfaces without distortion or discoloration of exposed side. Clean exposed welded surfaces of welding flux and dress exposed and contact surfaces.
 - 2. Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water penetration.
 - 3. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling

limitations. Clearly mark units for reassembly and installation, in location not exposed to view after final assembly.

- 4. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.

2.4 POSTS

- A. General: Fabricate posts to lengths required for mounting method indicated.
 - 1. Baseplate Method: Provide posts with baseplates, flanges, or other fittings, welded to bottom of posts. Drill holes in baseplate for anchor-bolt connection.
 - a. Provide anchor bolts of size required for connecting posts to concrete foundations.
- B. Aluminum Posts: Manufacturer's standard 0.25-inch- thick, extruded-aluminum tubing. Provide stop blocks in slots to hold panels in position. Include post caps, fillers, spacers, access panels, and related accessories required for complete installation.
 - 1. Oval Post: Custom Extrusion as indicated on drawing
 - 2. Square Posts: As indicated on drawings
 - 3. Round Posts: As indicated on drawings
 - 4. Post Finish: As indicated on drawings
 - 5. Post Coating: Dupont Imron 5000, Anti-Graffiti Protectant
- C. Custom Extrusion Die : The die used to create the custom extrusion will become the property of the City of Miami Beach. The fabricator will supply the owner with 3 sets of all extrusion die.
 - 1. 2 die will remain with the City of Miami Beach
 - 2. 1 die will remain with the fabricator for use on future City of Miami Beach projects
- D. Custom Extrusion Post : The post shall meet or exceed the following criteria:
 - 1. 1994 AASHTO A policy on Geometric Design of Highway and Streets
 - 2. 1994 AASHTO Standard Specification for Structural supports for Highway Signs, Luminaries and Traffic Signals
 - 3. 1996 AASHTO Roadside Design Guide
- E. Breakaway Post : Manufacturer shall provide breakaway posts for the sign types and locations indicated in the documentation drawings. Final designs and shop drawings shall be supplied by the fabricator for each of the poles identified. A Florida Professional Engineer shall sign and seal the submittal of shop drawings. The breakaway post shall meet or exceed the following criteria:
 - 1. 1994 AASHTO A policy on Geometric Design of Highway and Streets
 - 2. 1994 AASHTO Standard Specification for Structural supports for Highway Signs, Luminaries and Traffic Signals
 - 3. 1996 AASHTO Roadside Design Guide

2.5 SIGN PANELS

- A. General: Provide smooth sign panel surfaces constructed to remain flat under installed conditions within a tolerance of plus or minus 1/16 inch measured diagonally from corner to corner.
 - 1. Coordinate dimensions and attachment methods to produce message panels with closely fitting joints. Align edges and surfaces with one another in the relationship indicated.
 - 2. Increase metal thickness or reinforce with concealed stiffeners or backing materials as needed to produce surfaces without distortion, buckles, warp, or other surface deformations.
 - 3. Continuously weld joints and seams, unless other methods are indicated; grind, fill, and dress welds to produce smooth, flush, exposed surfaces with welds invisible after final finishing.

- B. Unframed Single-Sheet Panels: Provide unframed single-sheet sign panels with edges mechanically and smoothly finished.
 - 1. Panel Material: .25-inch- thick aluminum sheet
 - a. Panel Finish: Surface painted, utilizing Matthew polyurethane paint's or equal
 - b. Panel Coating: Dupont Imron 5000, Anti-Graffiti Protectant
 - 2. Edge Condition: Square cut.
 - 3. Corner Condition: As indicated on Drawings
 - 4. Form: Bend aluminum sheet at angle indicated on drawings

2.6 GRAPHICS

- A. Surface-Applied Copy and Background: Provide engineer grade reflective vinyl film with pressure-sensitive adhesive backing. Apply copy to exposed face of sign panel.

2.7 ALUMINUM FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- C. Baked-Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Apply baked enamel complying with paint manufacturer's written instructions for cleaning, conversion coating, and painting.
 - 1. Organic Coating: Thermosetting, modified-acrylic enamel primer/topcoat system complying with AAMA 2603 except with a minimum dry film thickness of 1.5 mils , medium gloss.
 - 2. Color: As indicated on drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Excavation: In firm, undisturbed or compacted soil, drill or (using a post-hole digger) hand-excavate holes for posts to diameters and spacing indicated.
- B. Excavation: In firm, undisturbed or compacted soil, drill or (using a post-hole digger) hand-excavate holes for each post to minimum diameter recommended by sign manufacturer, but at least four times the largest post cross-section.
 - 1. Excavate hole depths approximately 36 inches below finished grade.
- C. Set anchor bolts, mounting sleeves and other embedded items required for installation. Use templates furnished by suppliers of items to be attached.
- D. Install signs level, plumb, and at height indicated, with surfaces free from distortion or other defects in appearance.
- E. Prior to any digging the contractor must contact Miami Dade County Public Works department and the City of Miami Beach Public Works Department for marked-out of Traffic Signal conduits at all intersections where new signs shall be installed.
- F. Fabricator/Installer is responsible for contacting the utility companies prior to any digging. It is the responsibility of the fabricator/installer to coordinate all calls, utility checks and footer production so that it will not delay the installation of the sign program.
- G. Installer shall coordinate sequencing, excavation, delivery, installation and clean-up with all related construction projects including

streetscaping, roadwork or utility projects.

- H. Installer shall coordinate all excavation, delivery, installation and clean-up with adjacent businesses and property owners as required.
- I. Fabricator shall replace all surfaces with like materials. All new surfaces adjacent to and within 5' feet of post, including the entire excavated area shall be returned to the same condition and quality, including, materials, finish and grading that was present prior to excavation.
- J. When locating a footer within a single pavement block (max. 5'-0" x 5'-0"), adjacent to at least 2 expansion joints, the entire block of pavement shall be removed and replaced with the same materials and finish of adjacent sidewalk areas.
- K. Lateral Offsets: The following minimum lateral offsets shall be used for placement of signs:
 - 1. Urban Areas: 2' – 0" from face of curb to edge of sign
 - 2. Urban Areas with minimum sidewalk area: 1' – 6" from face of curb to edge of sign
 - 3. Urban Areas with minimum sidewalk area: minimum of 1'-0" from face of curb to edge of sign
- L. Installer representative will be present at all field surveys and site markings prior to installation. As part of a team including the City of Miami Beach, representatives of the design team and other agency representatives, the installer representative responsibilities will include;
 - 1. Measuring and marking out (spray paint) final sign location number and placement
 - 2. Recording measurements of sign placement from nearest intersection
 - 3. Recording any field conditions that may alter or revise design intent
 - 4. Record special field conditions, including custom pavers, colored concrete or other surface treatments that will require treatments
 - 5. Record all message, sign type and location revisions, additions or subtractions that effect the production or installation of the sign program.
- M. Upon installation of the sign. The fabricator shall cover the sign with a white vinyl bag, with drawstrings or other method of attachment and closure. A 4" Miami Beach logo (2 colors) shall be silk-screened on the outside of the bag.
 - 1. All signs shall be covered until accepted by the City
 - 2. Installer is responsible for removal of all bags within 24 hours of acceptance.
 - 3. Designer will supply Logo artwork and layout.

3.2 CLEANING

- A. At completion of installation, clean soiled surfaces of sign units according to manufacturer's written instructions. This shall be included within the lump sum cost of the project

3.3 TRAFFIC CONTROL

- A. Develop general Maintenance and Protection of Traffic plans for vehicular and pedestrian traffic in accordance with the current MUTCD, City, County and FDOT requirements. Details for traffic control device must conform to the standard MUTCD, City, County and FDOT details.
- B. The contractor shall apply for all permits required by the City of Miami Beach, Miami Dade County and FDOT for the purposes of traffic control. The cost for all permits and coordination shall be

included within the Lump Sum Bid Proposal, this includes but is not limited to equipment, manpower, police presence or any other devices required for traffic control.

3.4 REMOVAL

- A. The contractor shall remove all existing wayfinding, directional and trailblazer signs. This work shall be completed prior to the installation of the new sign component.

3.5 ATTIC STOCK

- A. Contractor shall supply attic stock components of posts, sign panels, brackets and other components as requested and as outlined on the Bid Form.
- B. If requested by the owner, contractor may provide storage space for attic stock. The cost of this will be a negotiated fee between the city and the contractor on, per square footage basis.

END OF SECTION 10436

SECTION J: **ORDERING & MAINTENANCE**

Maintenance Plan

To ensure that the City of Miami Beach Signage Program continues to function properly, the following is a list of guidelines for repair and replacement and must be followed closely.

The maintenance of the sign program is essential to its success. Worn, outdated or damaged signs do not present a positive image and do not build trust among the end-user, a critical component to wayfinding.

Report all sign necessary sign repairs and placement City of Miami Beach, Department of Public Works (305) XXX-XXX

Cleaning - General

Screws and bolts must be tightened periodically. Check for missing screws, nuts and bolts. These tend to get lost during maintenance procedures

Damaged bolts and screws must be replaced immediately. Damaged signs that present a hazard should be removed or replaced immediately (i.e, rusting that threatens the structural integrity of a sign unit, deterioration of electrical wiring or broken sign faces).

Check the sign box and anchor bolts for cracks. Suspended signs are in constant motion, putting stress on bolts and nuts.

For the removal and installation of any sign, a sign installation professional should be contacted.

Always contact a City of Miami Beach Preferred Vendor for repairs and replacement.

Cleaning – Schedule

Daily
If there is a report or an observation of a stickered or graffitied signs, use a light not caustic remover like a light paint thinner and lemon soap. Very softly remove the layers of graffiti and sticker. Do not use a scraper.

Quarterly
Four times per year inspect the system and clean only the panels that are extremely dirty to the point of color change. Clean the signs with water mixed with a light cleanser

Once per year
Clean all the signs

Cleaning and Maintenance - Processes

The City of Miami Beach Signage Program must be periodically cleaned to maintain their clarity and effectiveness. .

The factors that most effect sign degradation are graffiti and ultraviolet light. Graffiti is usually applied in two forms, spray paint or marker based, and Stickers. Only use mild solvents to avoid the wear and tear on your signs. The following is a guide when cleaning the signs

PAINTED ALUMINUM and ANODIZED ALUMINUM SIGNS

These surfaces are cleaned most easily using mild soaps, detergents or solvents applied to the surface with a soft cloth or sponge. For more stubborn stain, solvents such as Bestine or Acetone. However, extensive use of Acetone may cause painted surfaces to fade and loose their luster.

Dirt and Grime – A mix of Simple Green and water

Removing Graffiti – Mild Enamel Thinner

Removing Stickers - “Goo Gone” has shown it works very well with no damage to the sign surface.

Do not use scouring pads or cleaners containing abrasive, which will scratch the surfaces. If heavy duty cleaning is required, professional assistance should be requested from one of the City of Miami Beach preferred vendors

ACRYLIC AND VINYL SIGNS

Cleaning should be done with a soft cloth and window cleaner. Do not use cloths containing grit, abrasive particles or scouring compounds to clean plastic as they will scratch and damage the sign surface.

CONCRETE

These surfaces should be cleaned with a mild soap and soft bristle brush for most cases. In the event that the surface has an embedded stain, a power sprayer and a mild soap may be utilized. However, this should be done only by an experienced professional.

ELECTRONIC AND INTERNALLYILLUMINATED SIGNS

A maintenance contract with a preffered vendor is strongly recommended. Frequency of cleaning will vary based on location of the sign.

Supply voltage and grounding must be checked. Voltage drops can affect the life expectancy of lamps and ballasts.

COATINGS

Many factors influence the life and performance of coating systems. recognizing the exposure conditions and specifying the proper coatings is the first step in obtaining satisfactory coating performance. Specify adequate preparation and coatings, combined with on-the-job inspection during preparation and application, serve to assure the best possible coating performance.

Broadly defined problems which cause deterioration fall into one or more of the following categories.

Heat
Heat caused by either internal illumination or natural sun can cause discolor, blister and burn off.

Moisture
This problem may include exposure to steam, humidity, condensation or actual immersion in water. Coatings shall repel moisture to protect the surface.

Impact
Concrete may crack or chip and may require a special coating.

Abrasion
All surfaces in high traffic areas are subject to damage from abrasion.

Atmospheric Corrosion
Constant exposure to the elements - rain, cold, heat, temperature changes and the ultra violet rays of the sun - may wear away a protective coating. For a coating to work effectively, it must be tough enough to expand and contract with the surface to which it is applied.

Chemical Corrosion
Acids and alkalis will attack and destroy ordinary protective coatings.

Attic Stock - Recommendations

Recommendation
For every sign in the vehicular right of way keep a stock of 5% of the entire system in reserve. For signs not in the vehicular right of way keep only 1-2% in stock.

Recommendation
If using sleeve based sheared footers, quickly secure any broken poles and protect the ground plane.

Recommendation
For signs that are likely to change within three years put the teflon coat below vinyl, for signs that are not likely to change completely coat with vinyl.